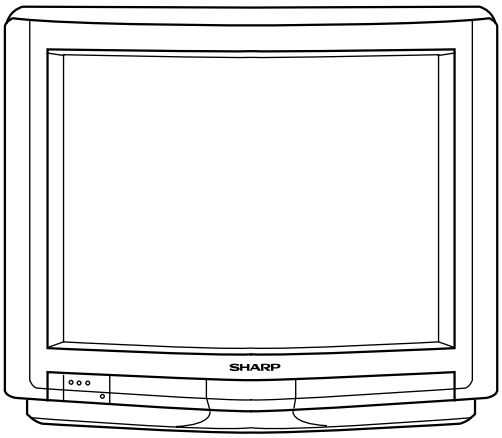
SHARP SERVICE MANUAL

S89N2CX80J5//



28 SYSTEM COLOUR TELEVISION

Chassis No. SP-71

MODEL CX80J5

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

FEATURE

- World Multi 28 System
- Auto Search Tuning System
- 100-ch Program Memory
- High Contrast Picture (Black Stretch Circuit)
- CATV (Hyper Band) Ready
  <Used Frequency Synthesizer Tuner>
- Digital Comb Filter (PAL/NTSC)
- 2 Mode Spatializer
- SUPER REAL TRANSIENT Circuit
- 6 Language OSD
  (English, Chinese, Russian, French, Arabic, Malay)
- 7-Entertainment Menu Function
- On Timer/Sleep Timer/Reminder Timer
- Picture Noise Reduction Circuit
- Blue Back Noise Mute
- Front & Rear AV-In/Out Terminals

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WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user – serviceable parts inside. Refer servicing to qualified service personnel.

SHARP CORPORATION

ELECTRICAL SPECIFICATIONS

Power Input	AC 220-240V, 50Hz		
Power Consumption	220W		
Convergence	Self Convergence System		
Focus	Bi-Potential, Uni-Potential Electroslatic		
Sweep Deflection	Magnetic		
Intermediate Frequency			
Picture IF Carrier	38.9 MHz		
Sound IF Carrier			
6.5 MHz	32.4 MHz		
6.0 MHz	32.9 MHz		
5.5 MHz	33.4 MHz		
4.5 MHz	34.4 MHz		
Colour Sub-Carrier			
PAL/NTSC	34.47 MHz		
SECAM	34.494/34.65 MHz		
NTSC	35.32 MHz		
Audio Power Output Rating	8W (RMS) x 2, total 16W (RMS)		
Speaker			
Size	10 cm Round x 2 pcs.		
Voice Coil Impedance	8 ohm at 400 Hz		
Aerial Input Inpedance	75 ohm Unbalanced		
Receiving Channels			
PAL-B/G, SECAM-B/G			
VHF	AU0	thru	AU12
	NZ1	thru	NZ11
	E2	thru	E12
UHF	E21	thru	E69
PAL-D/K, SECAM-D/K			
VHF	C1	thru	C12
	R1	thru	R12
UHF	C13	thru	C57
	R21	thru	R69
PAL-I			
VHF	: B	thru	J
UHF	(H.K.): 21	thru	69
NTSC-M			
VHF	(U.S.): 2	thru	13
	(JAPAN): 1	thru	12
UHF	(U.S.): 14	thru	69
	(JAPAN): 13	thru	62
CATV	S1	thru	S20
	S21	thru	S41
			(Hyper)

Receiving Frequency			
VHF Low	44.25 MHz	thru	463.25 MHz
UHF	471.25 MHz	thru	863.25 MHz

Dimensions	Width : 834.0 mm
	Height : 662.0 mm
	Depth : 544.0 mm
	Weight (approx.) : 57kg
Cabinet Materials	All Plastics

Specifications are subject to change without notice.

IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10k ohm Resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1. **Picture tube in this receiver employs integral implosion protection.**
2. **Replace with tube of the same type number for continued safety.**
3. **Do not lift picture tube by the neck.**
4. **Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.**

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing many produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. **When repairing the circuit, be sure not to increase the high voltage to more than 35.0 kV (at beam 0µA) for the set.**
2. **To keep the set in a normal operation, be sure to make it function on 30.5 ± 1.5 kV (at beam 2.0 mA) in the case of the set. The set has been factory-Adjusted to the above mentioned high voltage.**
   - **If there is a possibility that the high voltage fluctuates as a result of repairs, never forget to check for such high voltage after the work.**
3. **Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-Ray radiation.**

BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1. **Inspect all lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.**
2. **Inspect all protective device such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor- capacity networks, mechanical insulators and etc.**

ADJUSTMENT PRECAUTIONS

This model's settings are adjusted in two different ways: through the I²C bus control and in the conventional analog manner. The adjustment via I²C bus control include present-only variable data.

1) Calling the service mode by the microprocessor

① Make a short-circuit between TP1001 and TP1002, and the microprocessor is put in the service mode (adjustment through the I²C bus control).
② Press the CH-DOWN key on the remote controller to get ready to select the modes one by one.
③ Press the CH-UP key on the remote controller to get ready to select the modes in order opposite to the above step ②.
④ Using the VOL UP/DOWN keys on the remote controller, the data can be converted.
⑤ Remove the short-circuit between TP1001 and TP1002, and the microprocessor is put out of the service mode.

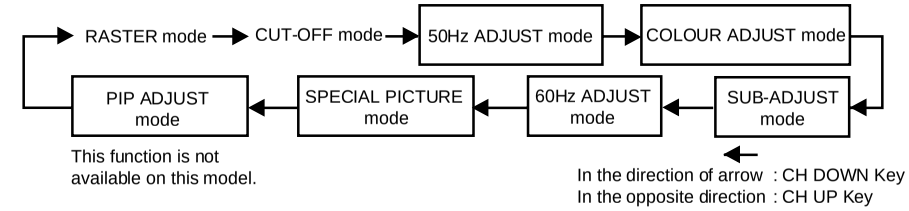
2) Setting the initial (preset) values

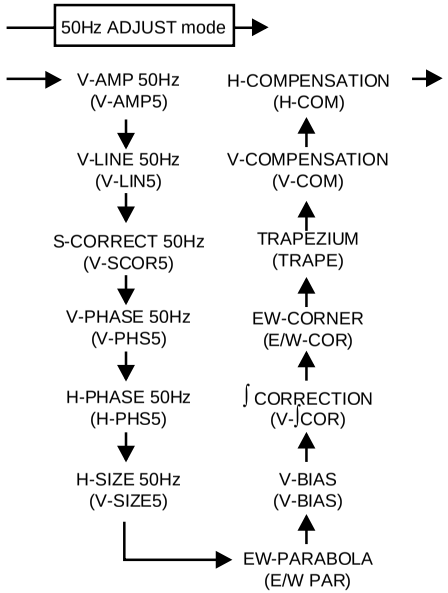
① Call up the service mode and turn on the main power switch. A new E²PROM (judged by the first 4 bytes) can be automatically set to the initial data.
② The initial data are as shown on pages 4 and 5.
③ Note that some items of the data must be modified and the others must stay as initial.

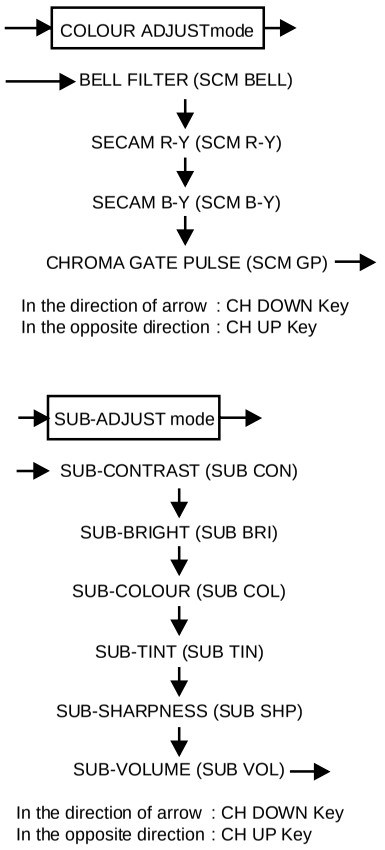
Note: After the chassis has been assembled, be sure to call up the service mode first and then turn on the main power switch, as discussed in 2)-① above. If the main power switch is turned on without the E²PROM initialized, an excess beam current may flow into the circuitry.

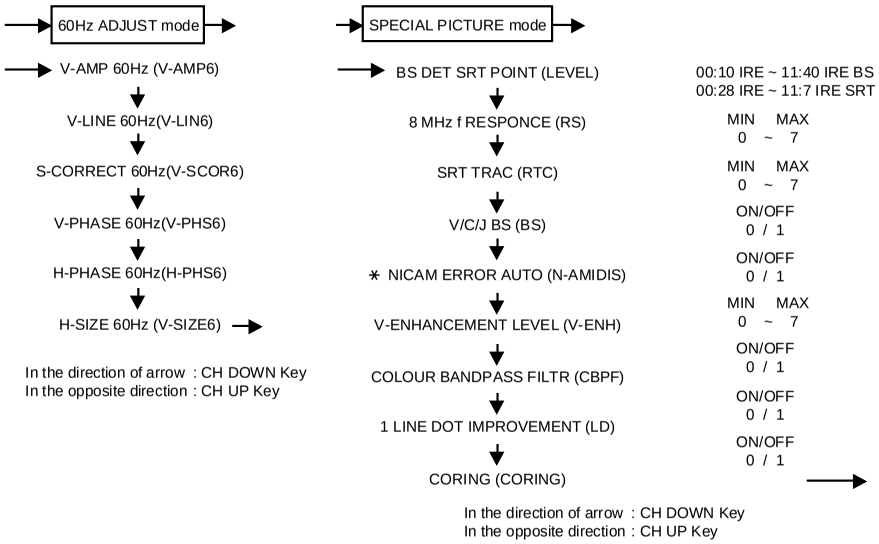
■ SERVICE MODE (I²C bus adjustment)

(1) Press the specific keys to change the modes as follows.


RASTER mode
CUT-OFF mode
50Hz ADJUST mode
COLOUR ADJUST mode
SUB-ADJUST mode
60Hz ADJUST mode
SPECIAL PICTURE mode
PIP ADJUST mode
This function is not available on this model.
In the direction of arrow : CH DOWN Key
In the opposite direction : CH UP Key




COLOUR ADJUSTmode
BELL FILTER (SCM BELL)
SECAM R-Y (SCM R-Y)
SECAM B-Y (SCM B-Y)
CHROMA GATE PULSE (SCM GP)
In the direction of arrow : CH DOWN Key
In the opposite direction : CH UP Key
SUB-ADJUST mode
SUB-CONTRAST (SUB CON)
SUB-BRIGHT (SUB BRI)
SUB-COLOUR (SUB COL)
SUB-TINT (SUB TIN)
SUB-SHARPNESS (SUB SHP)
SUB-VOLUME (SUB VOL)
In the direction of arrow : CH DOWN Key
In the opposite direction : CH UP Key



4

Use the following keys in the service mode to select desired items directly.

	CONT-UP	:		CONT-DOWN	:		EW-PAR
	COL-UP	:		COL-DOWN	:		V-LIN*
	BRI-UP	:		BRI-DOWN	:		V-PHS*
	TINT-UP	:		TINT-DOWN	:		H-SIZE*
	SHP-UP	:		SHP-DOWN	:		SCM-RY
	TRBL-UP	:		TRBL-DOWN	:		SUB-CON
	BASS-UP	:		BASS-DOWN	:		SUN-TINT
∗	UBASS-UP	:		∗ UBASS-DOWN	:		S-SYS
	SURR-UP	:	∗	TXT-CONT	SURR-DOWN	:	∗ TXT-BRI
	BAL-LEFT	:	∗	PIP H-POS	BAL-RIGHT	:	∗ PIP V-POS
	FINE-UP	:	∗	PIP TINT	FINE-DOWN	:	OSD-HR

The asterisked (*-marked) items are selected for the 50 Hz and 60 Hz modes according to the main 50/60 settings.

∗-mark; This function is not available on this model.

(2) * In going to the service mode, read the data at addresses 00H thru 03H on the EEPROM. If the data is different from the one below, initialize the EEPROM as follows.

00H: 50H 01H: 80H 02H: 30H 03H: 13H

[Adjusting items]

No.	Setting item	On-screen display	IC	Data setting	Initial value
0		SERVICE MODE			
1	CUT OFF ADJ.	CUT OFF BKGD		*	*
2	V-AMPLITUDE (50Hz) ADJ.	V-AMP5	PDC	V-AMPLITUDE	73
3	V-LINEARITY (50Hz) ADJ.	V-LIN5	PDC	V-LINEARITY	22
4	V-S CORRECTION (50Hz) ADJ.	V-S COR5	PDC	V-S CORRECTION	9
5	V-PHASE (50Hz) ADJ.	V-PHS5	VCD1	V-PHASE	7
6	H-PHASE (50Hz) ADJ.	H-PHS5	VCD1	H-PHASE	17
7	H-SIZE (50Hz) ADJ.	H-SIZE5	PDC	H-SIZE	42
8	EW-PARABOLA ADJ.	E/W PAR	PDC	EW-PARABOLA	33
9	V-BIAS	V-VIAS	PDC	V-BIAS	5
10	V-⌡CORRECTION	V-⌡COR	PDC	V-⌡CORRECTION	10
11	EW-CORNER ADJ.	E/W COR	PDC	EW-CORNER	5
12	TRAPEZIUM	TRAPE	PDC	TRAPEZIUM	30
13	V-COMPENSATION	V-COM	PDC	V-COMPENSATION	6
14	H-COMPENSATION	H-COM	PDC	H-COMPENSATION	4
15	BELL FILTER ADJ.	SCM BELL	SECAM	BELL FILTER	120
16	SECAM R-Y ADJ.	SCM R-Y	SECAM	R-Y	8
17	SECAM B-Y ADJ.	SCM B-Y	SECAM	B-Y	8
18	SECAM GATE PULSE ADJ.	SCM GP	SECAM	SGP	0
19	SECAM CHROMA ATT	SCM ATT	SECAM	C-ATT	0
20	SECAM ID SETTING	SCM ID	SECAM	ID-SENS	0
21	FLESH COLOUR SETTING	FLESH	VCD1	FLESH	1
22	SRT MODE SETTING	SRT-MD	VCD1	SRT-MD	0
23	WHITE PEEK DETECT LEVEL	WPDL	VCD1	WPDL	1
24	WHITE PEEK DETECT CURRENT	WPDC	VCD1	WP-DET	0
25	HI-BRIGHT COLOUR SETTING	HIBRT	VCD1	HI-BRT	1
26	Y-γ ADJ.	Y-GMMA	VCD1	Y-γ	1
27	COLOUR-γ ADJ.	C-GMMA	VCD1	COLOUR-γ	2
28	COLOUR DETAIL SETTING	CDE	VCD1	CDE	1
29	GP-PHASE ADJ.	GP-PHS	VCD1	GP-PHASE	0
30	R-Y PHASE ADJ.	RY-PHS	VCD1	R-Y PHASE	1
31	R-Y PHASE ADJ. (NTSC)	RY-PHSNT	VCD1	R-Y PHASE	1
32	R-Y GAIN ADJ.	RY-GAIN	VCD1	R-Y GAIN	0
33	G-Y GAIN ADJ.	GY-GAIN	VCD1	G-Y GAIN	2
34	P/N ID SENSITIVITY SETTING	PN-ID	VCD1	P/N-ID	1
35	Y DELAY ADJ.	Y-DLY	VCD1	Y-DLY	0
36	VM-PHASE ADJ.	VM-PHS	VCD1	VM-PHS	0
37	S-TRACKING ADJ.	STRAC	VCD1	S-TRAC	0
38	H-BLK PULSE ADJ.	HBLK	VCD1	H-BLK	0
39	DC-TRANS POINT ADJ.	DCT-P	VCD1	DC-TRANS POINT	2
40	DC-TRANS RATE ADJ.	DCT-R	VCD1	DC-TRANS RATE	6
41	DC-TRANS LIMIT ADJ.	DCT-L	VCD1	DC-TRANS LIMIT	0
42	B.S.P. LIMIT	BSPL	VCD1	B.S.P. LIMIT	0
43	B.S. POINT1	BSP1	VCD1	B.S. POINT1	5

	No.	Setting item	On-screen display	IC	Data setting	Initial value
	44	B.S. POINT2	BSP2	VCD1	B.S. POINT2	6
	45	B.S.G.	BSG	VCD1	B.S.G.	0
	46	BLACK LEVEL CORRECT1	BLC	VCD1	B.L.C.	1
	47	BLACK LEVEL CORRECT2	BLS	VCD1	B.L.S.	0
	48	BLACK DETECT LEVEL	BDL	VCD1	B.D.L.	1
	49	DYN. ABL-POINT	DABLP	VCD1	DYN. ABL-POINT	6
	50	DYN. ABL-GAIN	DABLG	VCD1	DYN. ABL-GAIN	4
	51	ABL-POINT	ABLP	VCD1	ABL-POINT	5
	52	ABL-GAIN	ABLG	VCD1	ABL-GAIN	6
	53	TOF F0 CHARACTERISTIC	TOF-F	VCD1	TOF F0	0
	54	TOF Q CHARACTERISTIC	TOF-Q	VCD1	TOF Q	0
	55	SUB-CONTRAST ADJ.	SUB CON	VCD1	SUB-CONTRAST	15
	56	BRIGHTNESS SUB ADJ.	SUB BRI	VCD1	BRIGHTNESS	140
	57	SUB COLOUR ADJ.	SUB COL	VCD1	SUB-COLOUR	35
	58	TINT SUB ADJ.	SUB TIN	VCD1	TINT	55
	59	SHARPNESS SUB ADJ.	SUB SHP	VCD1	SHARPNESS	63
	60	VOLUME SUB ADJ.	SUB VOL	S-CTRL	VOLUME	80
	61	TONE FILTER ADJ.	S-FIL	S-CTRL	SOUND FILTER	0
∗	62	TXT-CONTRAST ADJ.	TXT-CONT	VCD1	TXT-CONTRAST	50
∗	63	TXT-BRIGHTNESS ADJ.	TXT-BRI	VCD1	TXT-BRIGHTNESS	90
	64	V-AMPLITUDE (60Hz) ADJ.	V-AMP6	PDC	V-AMPLITUDE	73
	65	V-LINEARITY (60Hz) ADJ.	V-LIN6	PDC	V-LINEARITY	22
	66	V-S CORRECTION (60Hz) ADJ.	V-S COR6	PDC	V-S CORRECTION	9
	67	V-PHASE (60Hz) ADJ.	V-PHS6	VCD1	V-PHASE	3
	68	H-PHASE (60Hz) ADJ.	H-PHS6	VCD1	H-PHASE	21
	69	H-SIZE (60Hz) ADJ.	H-SIZE6	PDC	H-SIZE	41
	70	PLL MODE SETTING	PLL	PLL1/2	TEST	4
∗	71	IGR LEVEL ADJ.	IGR-LVL	IGR	LEVEL	4
∗	72	IGR	IGR-ST	IGR	STEREO	24
∗	73	NICAM ERROR RATE (MAX)	N-ERR MAX	NICAM	ERR-MAX	70
∗	74	NICAM ERROR RATE (MIN)	N-ERR MIN	NICAM	ERR-MIN	35
∗	75	NICAM ERROR	N-AMDIS	NICAM	AMDIS	0
	76	V-ENHANCEMENT	V-ENH	DCF	VENH	4
	77	COLOUR BAND PASS FILTER	CBPF	DCF	CBPF	0
	78	1 LINE DOT IMPROVEMENT	LD	DCF	LD	0
	79	CORING	CORING	DCF	COR	0
∗	80	PIP H-DISPLAY POSITION	H-POS	PIP	POS-H2,POS-H	16
∗	81	PIP V-DISPLAY POSITION	V-POS	PIP	POS-V	16
∗	82	PIP SUB TINT	PIP-TINT	VCD2	TINT	35
∗	83	PIP V-POSITION	VSIDLY5	PIP	VSIDEL	10
∗	84	PIP H-POSITION (50Hz)	HSIDLY5	PIP	VSIDEL	3
∗	85	PIP H-POSITION (60Hz)	HSIDLY6	PIP	VSIDEL	2
∗	86	PIP DISPLAY ADJ.	VSPDLY	PIP	VSPDEL	0
∗	87	PIP SEL ADJ.	SELDLY	PIP	SELDEL	2
∗	88	PIP Y-DELAY (PAL)	YDLYP	PIP	YDEL	0
∗	89	PIP Y-DELAY (NTSC)	YDLYN	PIP	YDEL	0

	No.	Setting item	On-screen display	IC	Data setting	Initial value
∗	90	PIP PLL SETTING	PLLTC	PIP	PLLTC	3
∗	91	PIP FRAME LUMINANCE	YFC	PIP	FRY	10
∗	92	PIP FRAME COLOUR	UFC	PIP	FRV.FRU	0
∗	93	PIP FRAME WIDTH	FRM	PIP	RWIDV,FRWIDH	12
	94	OSD	*	MICON	HR	9
	95	STANDARD SOUND SYSTEM	S-SYS	MICON		BG
	96	LANGUAGE OPTION SETTING	LANG	MICON		255
	97	PAL-TINT SETTING	PAL-TINT	VCD1	TINT	64

∗-mark; This function is not available on this model.

*For 60 Hz data, enter the following values in the data set for 50 Hz.

Setting Item	Offset Value
V-AMPLITUDE ADJ.	0
V-LINEARITY ADJ.	0
V-S. CORRECTION	0
V-BIAS	-4
H-PHASE ADJ.	+4
H-SIZE ADJ.	-1

Factory settings and geomagnetic adjustment model by model (reference)

Geomagnetism (H,V) nT		Background	Language	S-sys
-50,000	20,000	12,300K	ENGLISH	B/G

FACTRY SETTINGS

ITEM	DATA SETTING
SKIP	OFF
AFT	ON
C-SYSTEM	AUTO
S-SYSTEM	B/G
LAST POWER	ON
LAST TV/AV (MAIN/SUB)	TV
DIGIT	2DIG
LANGUAGE	ENGLISH
BULE BACK	ON
AV MENU	STANDARD
AUTO SELECT	OFF
LAST POS (MAIN/SUB)	1
LAST FB POS	1
VOLUME	0
BALANCE	0
CONTRAST	INITIAL VALUE OF EACH AV MENU MODE
COLOUR	INITIAL VALUE OF EACH AV MENU MODE
BRIGHTNESS	INITIAL VALUE OF EACH AV MENU MODE
TINT	INITIAL VALUE OF EACH AV MENU MODE
SHARPNESS	INITIAL VALUE OF EACH AV MENU MODE
YNR	INITIAL VALUE OF EACH AV MENU MODE
BKGD	INITIAL VALUE OF EACH AV MENU MODE
TREBLE	INITIAL VALUE OF EACH AV MENU MODE
BASS	INITIAL VALUE OF EACH AV MENU MODE
SPATIALIZER	AV MENU : STANDARD ON ① LEVEL 0
	OTHER AV MENU : INITIAL VALUE
TIMER	CLEAR
SAVE	OFF
DEMO	OFF

SERVICE ADJUSTMENT

■ PIF/AFT/AGC ADJUSTMENT

1. TUNER IFT (preset) ADJUSTMENT: TU201

1. Get the tuner ready to receive the E-9CH signal, but with no signal input. Adjust PLL data.
2. Connect the sweep generator's output cable to the tuner antenna. (RF sweep)
3. Adjust the sweep generator's output level to 80 dBμV.
4. Connect the response lead (use a low-impedance probe with wave detector; see ***Fig.1***.) to the tuner's IF output terminal.
   (This terminal must have the probe alone connected.)
5. Set the RF AGC voltage to 0-6V with no contact with waveform.
6. Adjust the tuner IF coil to obtain the waveform as shown in ***Fig.2***.

Note: Be sure to keep the tuner cover in position during this adjustment.

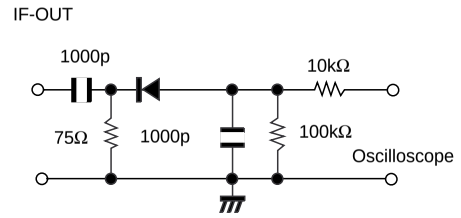


Fig. 1

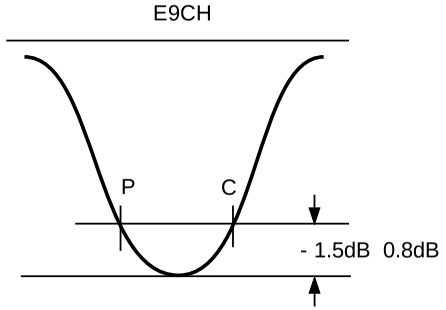


Fig. 2

2. VCO ADJUSTMENT: T203

1. Disconnect the antenna from the tuner antenna terminal.
2. Apply DC voltage at pin (4) (IF AGC) of IC201.
   6.0 ± 0.1 V TP202
3. Using a digital voltmeter, measure the DC voltage at pin (20) (PLL FIL) of IC201.
   TP203 About 0.007V corresponds to 10kHz.
   * Prepare a digital voltmeter capable of reading down to the third decimal place.
4. Remove the DC voltage from pin (4) of IC201.
5. Reconnect the antenna and receive the E-12CH signal. (With the AFT off, set the receiving frequency to 224.25 MHz.)
6. Connect the DC digital voltmeter to pin (20) of IC201. Adjust T203 to get the voltage measured in the above step 3.
   Allowable error: ± 0.015 V (20 kHz)

■ PIF/AFT/AGC ADJUSTMENT

3. AFT ADJUSTMENT: T204

1. Receive the E-12CH (PAL colour bar) signal. If this signal is not available, any signal above the E-5CH band is acceptable.
   •Field strength: 55~80 dBµV
   Make sure the frequency is almost the same as that of the received channel (± 30 kHz).
2. Using the channel setting control, make a frequency of 224.25 MHz appear on the screen. (AFT off)(If any other channel than E-12CH is received, make its frequency on the screen.)
3. Turn T204 coil clockwise first to have 6V reading and then counterclockwise to get 0.2 V reading.
   Within this range, adjust this coil to reach the voltage below.
4. Adjust T204 so that the DC voltage at the pin (1) of IC201 be 3.3 ± 0.2 V. (See ***Fig. 3***.)

DC voltage at TP201 [Pin (1) of IC201]

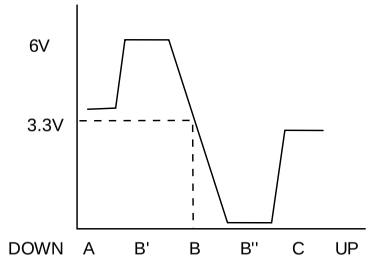


Fig. 3

* Turn the core counterclockwise for the UP direction, and clockwise for the DOWN direction. Adjust the T204 core to point B (between B' and B''). Point A and C are rejectable.

4. RF AGC CUT-IN ADJUSTMENT: R226

1. Receive the E-12CH (Pal colour bar) signal.
   • Field strength: 57 ± 1 dBµV (75 ohms open)
2. Connect the oscilloscope to P201, as shown in ***Fig. 4.***
   • Bias box: About 6.5V
3. Turn R226 to have the highest voltage.
4. Turn R226 slowly in the opposite direction until the voltage goes down 0.1V below the highest level.
5. Adjust the signal level to 63-67 dBµV and make sure there are no noise.
6. Now adjust the signal level to 90-95 dBµV and make sure there is no chrominance modulation beat.

Note: If a 50 ohm field strength meter is used without a 50/75 impedance converter, set the field strength to 55 ± 1dBµV. Pay attention to a loss that would be cause with the converter.

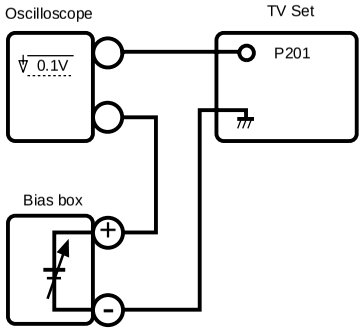


Fig. 4

5. VIDEO DETECTION LEVEL ADJUSTMENT: R224

1. Receive the "B/G SYSTEM PAL COLOUR BAR" signal (100% white colour bar). Set the S system to B/G.
2. Adjust R224 so that the video output at the AV OUT terminal be 1.0 ± 0.05 Vp-p with a 75 ohm termination.

■ DIGITAL COMB FILTER Y LEVEL ADJUSTMENT

1. DIGITAL COMB FILTER Y LEVEL ADJUSTMENT: R5467

1. Input the PAL colour bar (100% white colour bar) signal to AV-IN terminal with a 75 ohm termination (input level 1.0 ± 0.05 Vp-p).
2. Connect the oscilloscope to TP5462 (pin (7) of connector YA).
3. Adjust R5467 so that the Y signal (100% white) at TP5462 be 2.0 ± 0.1Vp-p.

Note: Make sure that the signal is linearly amplified overall. (The 100% portion should be kept intact.)

<Reference> Note the voltage level for the adjustment with the E-12CH signal.
To be adjusted to 2.0 Vp-p at TP5462
* Make sure the above value is available after the adjustment No. 5. (See Page 12.)
Input (YB) (2): 2.0 V ± 0.1 Vp-p
Output (YA) (7): 2.0 V ± 0.1 Vp-p

■ PAL CHROMA ADJUSTMENT

1. SUB-COLOUR ADJUSTMENT (I²C bus adjustment)

1. Receive E-12CH "PAL colour bar" signal.
2. Using the remote controller, call the Video Normal mode.
3. Connect the oscilloscope to TP852 (RED cathode).
   (Use a 10:1 probe.)
   • Range : 2V/div.
   • Sweep time : 20µsec/div.
4. Using the remote controller, call the sub-colour adjustment mode. Adjust the sub-colour data so that the 75% white and red portions of the PAL colour bar be at the same level. See ***Fig.5***.

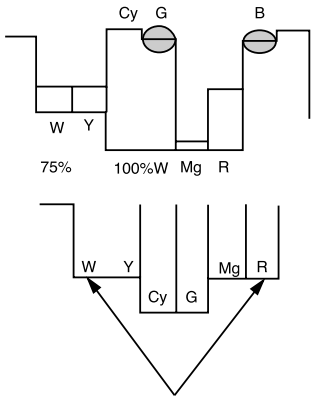


Fig. 5

■ NTSC CHROMA ADJUSTMENT

1. SUB-TINT ADJUSTMENT (I²C bus adjustment)

1. Call the sub-tint adjustment mode. Receive the "NTSC COLOUR BAR" signal.
2. Connect the oscilloscope to TP806 (B-Y)
   • Range : 20mV/div.(AC)
   • Sweep time : 20µsec/div.
   (Use a 10:1 probe.)
3. Adjust the sub-tint data to obtain the waveform as shown in ***Fig.6***.
4. Clear the adjustment mode.

Note: TP806.....pin (55) of IC801

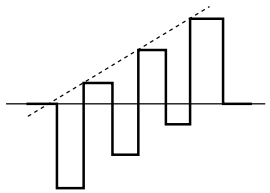


Fig. 6

■ SECAM CHROMA ADJUSTMENT

1. BELL FILTER fo ADJUSTMENT (I²C bus adjustment)

1. Receive the "SECAM COLOUR BAR" signal.
2. Call the bell filter fo adjustment mode.
3. Connect the oscilloscope to pin (21)(TP901) of IC901.
   • Range : 10mV/div. (AC)
   • Sweep time : 20µsec/div.
4. Adjust the bell filter data to have a waveform, the shape of which closest to the ***Fig.7***.

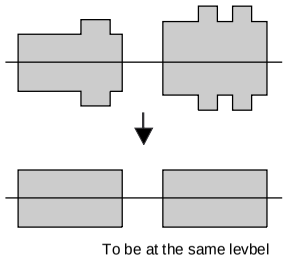


Fig. 7

2. SECAM BLACK LEVEL (R-Y/B-Y) ADJUSTMENT (I²C bus adjustment)

1. Receive the "SECAM COLOUR BAR" signal.
2. Call the SECAM R-Y adjustment mode.
3. Connect the oscilloscope to pin (11)(R-Y OUT, TP801) of IC901.
   • Range : 10mV/div.
   • Sweep time : 20µsec/div.
   (Use a 10:1 probe.)
4. Adjust the R-Y data so that the offset between the no-signal and the signal line be minimum. See ***Fig.8***.
5. Call the SECAM B-Y adjustment mode.
6. Reconnect the oscilloscope to pin (10) (B-Y OUT, TP802) of IC901. Take the same conditions as in step 3 above.
7. Adjust the B-Y data so that the offset between the no-signal and the signal line be minimum. See ***Fig.8***.

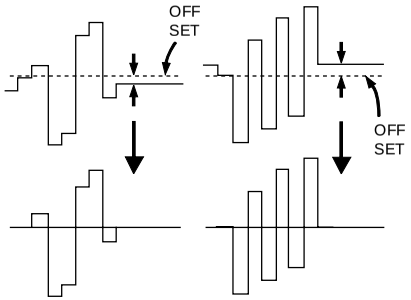


Fig. 8

■ SOUND ADJUSTMENT

1. SUB SOUND ADJUSTMENT (I²C bus adjustment)

1. Feed the following signal to the AV terminal. Signal: 1 kHz, 1.76 Vp-p (terminated with a 10k ohm impedance), 0.04/-0.06 Vp-p
2. Set the volume control to MAX.
3. Connect the VTVM probe to the S1 connector. (Pin ①: L-ch, pin ②: GND, pin ③: R-ch)
4. Adjust the sub-sound data so that the VTVM should read the following voltage. For the left channel.
   Adjustment error: 8.0 ± 0.1 Vrms

Notes:

- **Spatializer off**
- **In the S-Normal mode**
- **S-VOL control at MAX position**

* Use an 8 ohm dummy load.

2. NOISE MUTE CHECKING

1. Receive E-12CH "PAL colour bar" signal.
2. Turn up the volume control to maximum and make sure the sound is heard from the speakers. Then put the unit in the no-signal state.
3. Be sure that the sound mute is effective.
4. Finally turn down the volume control minimum.

■ PURITY ADJUSTMENT

1. Using the remote controller, call the green-only screen.Set the contrast control to have a beam current of 1.9 mA.
2. Fully degauss the cathode ray tube with the degaussing coil.

Note: The magnetic field adjustment is referred to in the Production Communication Sheet. See the factory settings table for the magnetic field.

3. Set the purity magnet to the zero magnetic field, and roughly adjust the convergence. Now adjust the purity magnet to get the centering rank A.
4. Move the deflection yoke to and fro, and observe the points “a” and “b” as shown in ***Fig. A*** with a microscope.
   Set the landings to 20 µm. Insert and drive the wedge to keep the deflection yoke well balanced top and bottom.

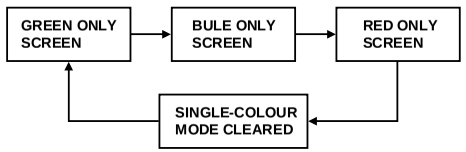
4'. If the points “a” and “b” are poorly balanced, correct the centering up to the rank AB.

5. Adjust the raster rotation to 0 eastward.
6. Tighten the deflection coil lock screws.Tightening torque: 108 +20 N (11 +2 kgf)
7. Check the corners on the cathode ray tube screen. Correct the landings, as required, to the rank A by applying the magnetic sheet.

Note: Make this adjustment after warming up the unit at the beam current of 1,900 +50 µA for 30 minutes or longer.
If any other adjustment is made during the warming-up, warm up the unit for 2 more minutes and start the purity adjustment.

Note: Call the service mode with TP1001 (TP1002) and press the single-colour key on the process remote controller, and the green-colour screen comes up.

Note: After adjusting the convergence, set the “a” and “b” landings to 20 µm in advance.



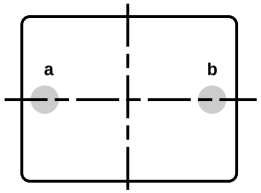
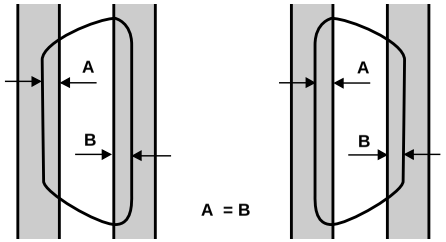


Fig. A



Rank "A" (on the right of the CRT)

Rank "A" (on the left of the CRT)

* Hold down the single - colour key for 1 seconds or longer, whether in the service mode or not, and the single - colour mode is called up. Also with the text keys “R” , “G” and “Cy” the corresponding single-colour screen comes up.

*1: The deflection yoke position (YPB. is adjusted by setting the “a” and “b” landings.
[20-µm point]

SURROUNDING PURITY ADJUSTMENT

1. Make sure the deflection yoke (YPB) is positioned well. Receive the crosshatch signal and move the deflection yoke to roughly adjust the YH and YV. (Fix the deflection yoke with the wedge within 30 seconds.)
2. Call up the green-only screen, and set the beam current to 1,900 µA.
3. With BH at 0 and BV as specified by the Production Communication Sheet, make sure the landings at the corners are of rank A. If not, apply a purity correction magnet and readjust the landings.
   The magnetic field adjustment is referred to in the Production Communication Sheet.

■ CONVERGENCE ADJUSTMENT

(To be done after the purity adjustment)

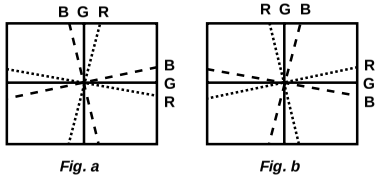


Fig. a *Fig. b*

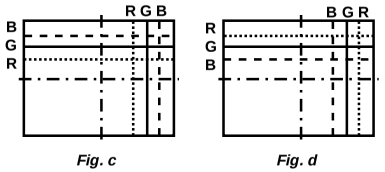
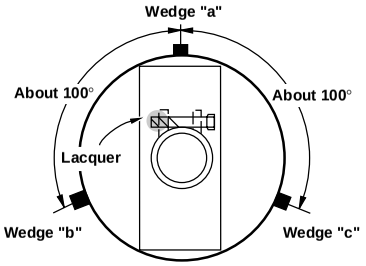
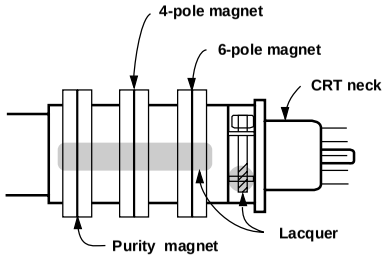


Fig. c *Fig. d*





1. Receive the E-2CH "CROSSHATCH PATTERN" signal.
2. Using the remote controller, call the Normal mode.

STATIC CONVERGENCE

1. Turn the 4-pole magnet to a proper opening angle in order to superimpose the blue and red colours.
2. Turn the 6-pole magnet to a proper opening angle in order to superimpose the green colour over the blue and red ones.

DYNAMIC CONVERGENCE

1. Adjust the convergence on the fringes of the screen in the following steps.

a) ***Fig. a***: Drive the wedge at point "a" and swing the deflection coil upward.
b) ***Fig. b***: Drive the wedge at points "b" and "c" and swing the deflection coil downward.
c) ***Fig. c***: Drive the "c"wedge deeper and swing the deflection coil rightward.
d) ***Fig. d***: Drive the "b"wedge deeper and swing the deflection coil leftward.

2. Fix all the wedges on the CRT and apply glass tape over them.
3. Apply lacquer to the deflection yoke lock screw, magnet unit (purity, 4-pole and 6-pole magnets) and magnet unit lock screw.

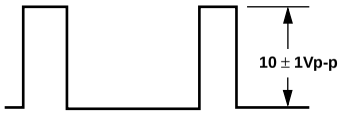
■ CRT CUT-OFF, BACKGROUND AND SUB-CONTRAST ADJUSTMENT

1. CRT CUT-OFF ADJUSTMENTS

Adjusting Point

■ Sub-Brightness: R890

1. Receive E-5CH "MONOSCOPE PATTERN" signal.
2. Using the remote controller, call up the Video Normal mode.
3. Go to the service mode (Make short-circuit between TP1001 and TP1002.) and select the cut-off/background mode.



4. Connect the oscilloscope to TP852 (RED cathode).
5. Set the screen control to 0/10 position.
6. Press the "•/••" key on the remote controller to reach the horizontal centering mode.
7. Adjust the sub-brightness control (R890) so that the blanking pulse on the oscilloscope screen be 10 ± 1Vp-p.
8. Disconnect the oscilloscope from TP852.
9. Turn the screen control counterclockwise until the horizontal raster glimmers.
10. Adjust the cut-off data of the other two colours until the horizontal raster becomes whitish.

Note: The data can be turned up and down with the above keys.

- **R CUT OFF UP "1" key**
- **G CUT OFF DOWN "5" key**
- **R CUT OFF DOWN "4" key**
- **B CUT OFF UP "3" key**
- **G CUT OFF UP "2" key**
- **B CUT OFF DOWN "6" key**

11. Turn the screen control counterclockwise until the horizontal raster disappears.

Note: Before starting this adjustment, warm up the unit for 30 minutes or longer at a beam current of 1,900 ± 50µA.

12. Press the "•/••" key on the remote controller to call the normal mode.

2. WHITE BALANCE and BACKGROUND (I²C bus adjustment)

1. Receive the E-5CH "MONOSCOPE PATTERN" signal.
2. Using the remote controller, call the Video Normal mode.
3. Connect the ammeter between TP601 and TP602.
4. Roughly adjust R1631 (Max beam adjustment) to have a beam current of about 1.9 mA.
5. Receive the WINDOW PATTERN signal. (Or receive the white balance pattern signal.)
6. Adjust the G-drive and B-drive data to have a colour temperature of 12,300°K. (white).

•12,300°K. X: 0.272
Y: 0.275

(with a Minolta colour temperature meter CA-100)

Note: The data can be turned up and down with the above keys.

- **G-DRIVE UP "7" key**
- **B-DRIVE UP "8" key**
- **G-DRIVE DOWN "⇄" key**
- **B-DRIVE DOWN "0" key**

7. Using the R-CUT OFF, G-CUT OFF, and B-CUT OFF controls, adjust the white/dark portion to 12,300°K.
8. Readjust the colour temperature at the white peak.
9. Check the white/dark portion to make sure the colour temperature is 12,300°K.

Note: Before starting this adjustment, warm up the unit for 30 minutes or longer at a beam current of 1,900 ± 50µA.

*The colour temperature is reffered to in the factory setting table.

■ CRT CUT-OFF, BACKGROUND AND SUB-CONTRAST ADJUSTMENT (Continued)

3. MAX BEAM ADJUSTMENT: R1631

1. Receive the E-5CH "MONOSCOPE PATTERN" signal.
2. Using the remote controller, call the Video Normal mode.
3. Connect the ammeter between TP601 and TP602.
   - Ammeter's full scale : 3mA range
   - Ammeter's positive (+) read : TP601
   - Ammeter's negative (-) read : TP602
4. Adjust R1631 (Sub-contrast adj.) so that the beam current be 2.0 ± 0.05 mA.

Note: Before starting this adjustment, warm up the unit for 30 minutes or longer at a beam current of 1,900 ± 50µA.

4. SUBBRIGHTNESS (I²C bus adjustment)

1. Receive the JA-12CH (window pattern) signal.
2. Using the remote controller, call up the normal video mode.
3. With a brightness meter (with "Y" of CA-100), adjust the sub-brightness control so that the right-hand dark/white portion be 1.8 ± 0.3 cd.

■ HORIZONTAL AND VERTICAL CIRCUIT ADJUSTMENT

1. MAIN PICTURE ADJUSTMENT

For this items 1 thru 6 below, use the remote controller in the service mode.

1. V-AMPLITUDE 50:	Adjust the overscan 8.5% (E-5).
2. V-LINEARITY 50:	Adjust to get the best linearity.
3. V-S-CORRECTION 50:	Preset (readjust if the linearity is poor).(10)
4. V-PHASE 50 (V-CENTER):	Align the screen center with CRT's geometrical center (E-5)
5. H-PHASE 50 (H-CENTER):	Align the screen center with CRT's geometrical center (E-5)
6. H-SIZE 50:	Adjust the overscan 8.5% (E-5).
7. EW-PALABOLA (SIDE-PIN):	Adjust so that the second vertical lines from the left and right ends of the crosshatch pattern be straight (E-2).
8. V-BIAS:	Preset (7)
9. V-S-CORRECTION:	Preset (15)
10. EW-CORNER (SUB-SIDEPIN):	Adjust so that the end of the crosshatch pattern be straight.
11. TRAPEZIUM:	Preset (Readjust if the trapezium is poor). (25)
12. V-COMPENSATION:	Preset (5)
13. H-COMPENSATION:	Preset (5)
14. Others:	For the V-AMPLITUDE 60, V-LINEARITY 60, V-S-CORRECTION 60, V-PHASE 60, H-PHASE60, and H-SIZE 60 adjustment, their corrected data are automatically entered when the corresponding 50 Hz mode adjustments are made.

The signals of the receive channels in parethesis are follows.
(E-2): Crosshatch pattern (50Hz) (E-5): Monoscope pattern (50Hz)
If an error is too much in checking any of the 60Hz items, readjust the item in 60Hz mode

■ HORIZONTAL AND VERTICAL CIRCUIT ADJUSTMENT

2. FOCUS ADJUSTMENT

1. Receive the E-5CH "MONOSCOPE PATTERN" signal.
2. Using the remote controller, call the Video Normal mode.
3. Adjust the focus control so that the "SHARP" at the upside of the screen.

■ A/V INPUT AND OUTPUT CHECK

1. AUDIO/VIDEO OUTPUT CHECK

1. Receive the E-12CH "PAL COLOUR BAR" signal (100% white colour bar, sound 400Hz, 100% mod.).
2. Terminate the video output with a 75 ohm impedance. Make sure the output is as specified (1.0Vp-p ± 3dB).
3. Terminate the audio output with a 10k ohm impedance. Make sure the output is as specified (1.76Vp-p ± 3dB).

2. AUDIO/VIDEO INPUT CHECK, S-TERMINAL INPUT CHECK

1. Using the TV/VIDEO key on the remote controller, make sure that the modes change in order of TV, AV1, AV2, AV3 and TV again and that the video and audio outputs are according to the input and output terminals for each mode.
2. In the AV1 mode, connect the connector to the S-VIDEO input terminal. Make sure the AV mode changes to the S-VIDEO mode, that the unit functions well, and that "AV1-S" appears on the screen.

3. AV3 AUTOMATIC SELECT CHECK

1. Using the remote controller, receive a TV broadcast signal.
2. Feed the signal to the AV3 VIDEO input terminal. Make sure the AV3 mode shows up automatically.

* Setting: AUTO SELECT to be turn on.

■ PROTECTOR PERFORMANCE CHECK

1. BEAM PROTECTOR

1. Receive the E-5CH "MONOSCOPE PATTERN" signal.
2. Set the contrast control to maximum.
3. Set the brightness control to maximum.
4. Make a short-circuit between the collector and emitter of Q853 and make sure that the protector is activated and the stand-by mode is called.

2. HIGH-VOLTAGE PROTECTOR

1. Receive the E-5CH "MONOSCOPE PATTERN" signal.
2. Connect the bias box to the cathode (R1625 side) of D1607.
3. Adjust the bias box voltage to 16V and make sure that the protector is not activated.
   • Reference : Usual activate voltage is 19.7V.
4. Boost the bias box voltage to 24V and make sure that the protector is activated.

3. OTHER PROTECTORS

1. In checking the performance of other protectors – for example, the one against shorting of smoothing electrolytic capacitor of + B line (pay attention not to damage or deteriorate element).

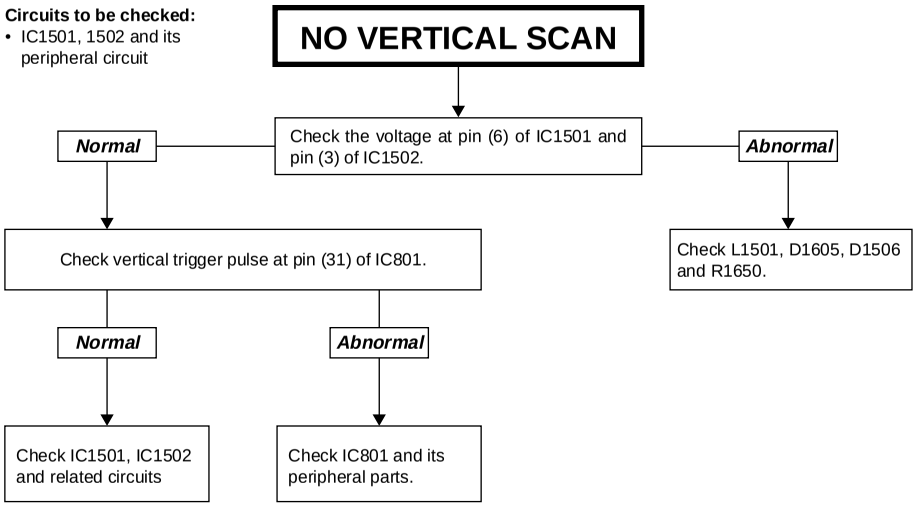
PERFORMANCE CHECK (VIDEO AND AUDIO)

NO.	CHECK POINT	PROCEDURE AND CONDITIONS	NOTE, ctc.
1	CONTRAST	① Receive the E-5CH signal. ② Select CONTRAST in the Menu. ③ Using the UP/DOWN keys, make sure the contrast changes accordingly.	
2	COLOUR	① Receive the J-13CH signal. ② Select COLOUR in the Menu. ③ Using the UP/DOWN keys, make sure the colour changes accordingly. (At the MIN position, there must be no colour.)	
3	BRIGHTNESS	① Receive the E-5CH signal. ② Select BRIGHT in the Menu. ③ Using the UP/DOWN keys, make sure the black level changes accordingly.	
4	TINT	① Receive the J-13CH signal. ② Select TINT in the Menu. ③ Using the UP key, make sure the tint changes toward green. With the DOWN key, make sure it changes toward red.	
5	NORMAL	① In the Picture and Sound adjustment mode, press the Normal key to make sure the displayed content alone appears normal.	
6	SHARPNESS	① Receive the E-5CH signal. ② Select SHARPNESS in the Menu. ③ Using the UP/DOWN keys, make sure the sharpness changes accordingly.	
7	CHANNEL SIGN	① Make sure all the channel (0 thru 99) signs appear DISPLAY COLOUR green (with the AFT on).	
8	TREBLE	① Receive the E-5CH signal. ② Select TREBLE in the Menu of sound adjustment. ③ Using the UP/DOWN keys, make sure the treble changes accordingly.	
9	BASS	① Receive the E-5CH signal. ② Select BASS in the Menu of sound adjustment. ③ Using the UP/DOWN keys, make sure the bass changes accordingly.	
10	BALANCE	① Receive the E-5CH signal. ② Select BALANCE in the Menu of sound adjustment. ③ Using the UP/DOWN keys, make sure the left-to-right balance changes accordingly.	

NO.	CHECK POINT	PROCEDURE AND CONDITIONS	NOTE, ctc.
11	COLOUR SYSTEM	① Receive the E-12CH PAL colour bar signal. Select a colour system other than PAL. Make sure the colour system does not work. ② Receive the E-10CH SECAM colour bar signal. Select a colour system other than SECAM. Make sure the colour system does not work. ③ Receive the E-37CH NTSC4.43 colour bar signal. Select a colour system other than N4.43. Make sure the colour system does not work. ④ Receive the JA-8CH NTSC3.58 colour bar signal. Select a colour system other than N3.58. Make sure the colour system does not work.	
12	SOUND SYSTEM	① Receive the OI-9CH PAL (D/K) colour bar signal. Select the M, B/G and I sound systems to make sure the sound system does not work. ② Receive the E-23CH (I) monoscope pattern signal. Select the M, B/G and D/K sound systems to make sure the sound system does not work. ③ Receive the E-12CH (B/G) colour bar signal. Select the M, I and D/K sound systems to make sure the sound system does not work. ④ Receive the JA-8CH (M) colour bar signal. Select the B/G, I and D/K sound systems to make sure the sound system does not work.	
13	SPATIALIZER	① Receive the E-5CH music broadcast signal. ② Using the Menu screen, make sure the sound modes change as follows. ③ In the mono mode, listen to the sound from the speakers and make sure it feel wide.	SPATIALIZER OFF ↓ SPATIALIZER 1 ↓ SPATIALIZER 2

TROUBLE SHOOTING TABLE

Circuits to be checked:
- IC1501, 1502 and its peripheral circuit

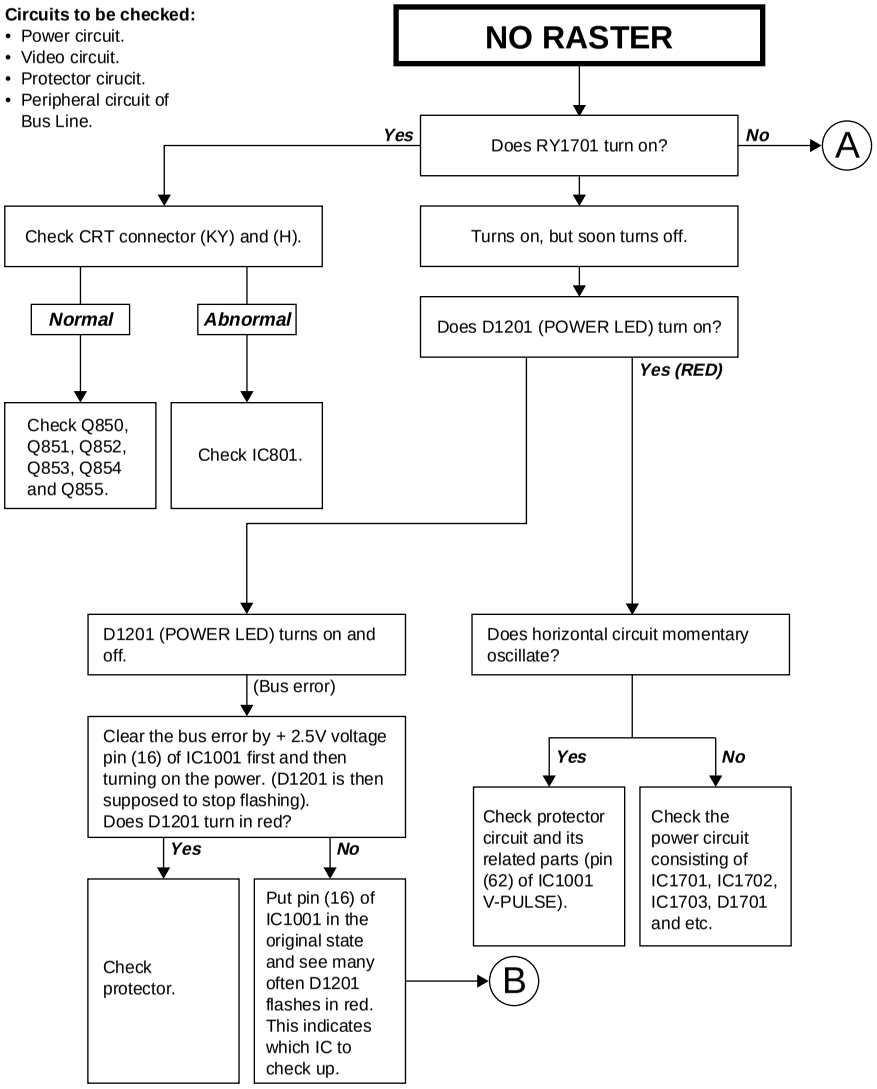

NO VERTICAL SCAN
Check the voltage at pin (6) of IC1501 and pin (3) of IC1502.
Normal
Abnormal
Check vertical trigger pulse at pin (31) of IC801.
Check L1501, D1605, D1506 and R1650.
Normal
Abnormal
Check IC1501, IC1502 and related circuits
Check IC801 and its peripheral parts.

Note1: Make sure that not for the horizontal centering mode. Turn on the service mode. (Short TP1001 and TP1002.) Then when you press "- / --" key on the remote you can get in the horizontal centering mode.

Note2: The vertical sync signal must be fed to pin (62) of IC1001 in oder not to activate the vertical no-scan protector. Take this measure with the protector circuit for the troubleshooting on the following pages.

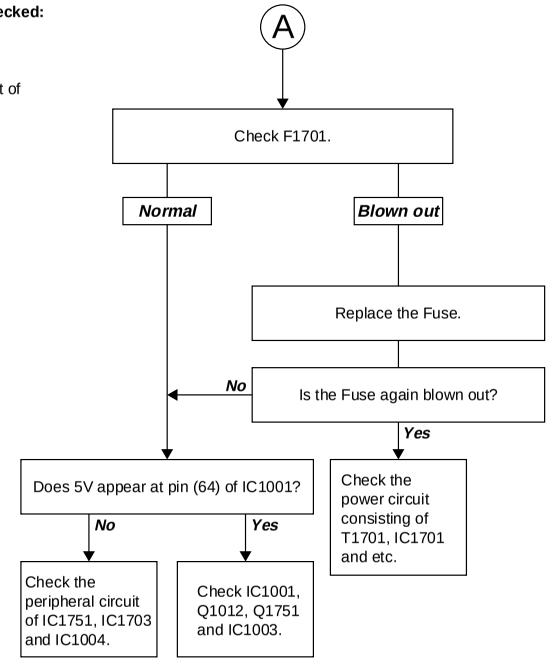
TROUBLE SHOOTING TABLE (Continued)

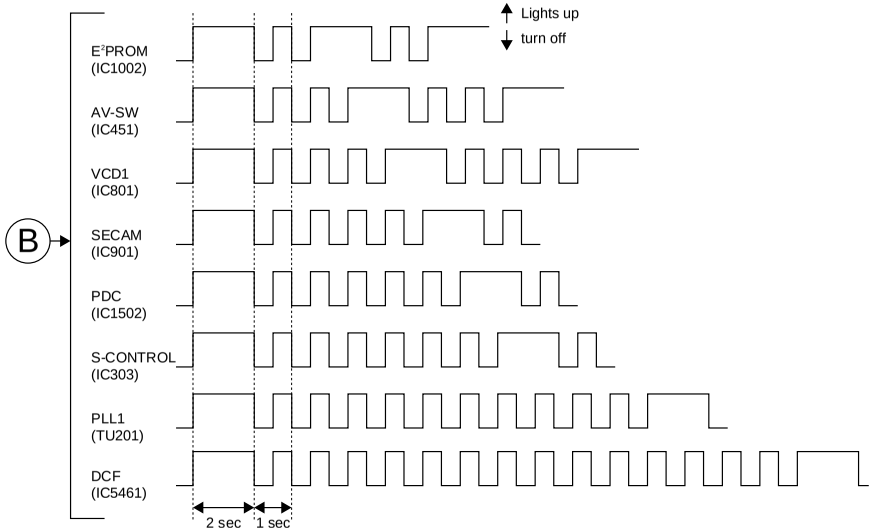
Circuits to be checked:
- Power circuit.
- Video circuit.
- Protector cirucit.
- Peripheral circuit of Bus Line.


NO RASTER
Does RY1701 turn on?
Yes
No
A
Check CRT connector (KY) and (H).
Turns on, but soon turns off.
Normal
Abnormal
Does D1201 (POWER LED) turn on?
Yes (RED)
Check Q850, Q851, Q852, Q853, Q854 and Q855.
Check IC801.
D1201 (POWER LED) turns on and off.
Does horizontal circuit momentary oscillate?
(Bus error)
Clear the bus error by + 2.5V voltage pin (16) of IC1001 first and then turning on the power. (D1201 is then supposed to stop flashing). Does D1201 turn in red?
Yes
No
Yes
No
Check protector circuit and its related parts (pin (62) of IC1001 V-PULSE).
Check the power circuit consisting of IC1701, IC1702, IC1703, D1701 and etc.
Check protector.
Put pin (16) of IC1001 in the original state and see many often D1201 flashes in red. This indicates which IC to check up.
B

TROUBLE SHOOTING TABLE (Continued)

Circuits to be checked:
- Power circuit.
- Micon circuit.
- Protector circuit
- Peripheral circuit of Bus Line.

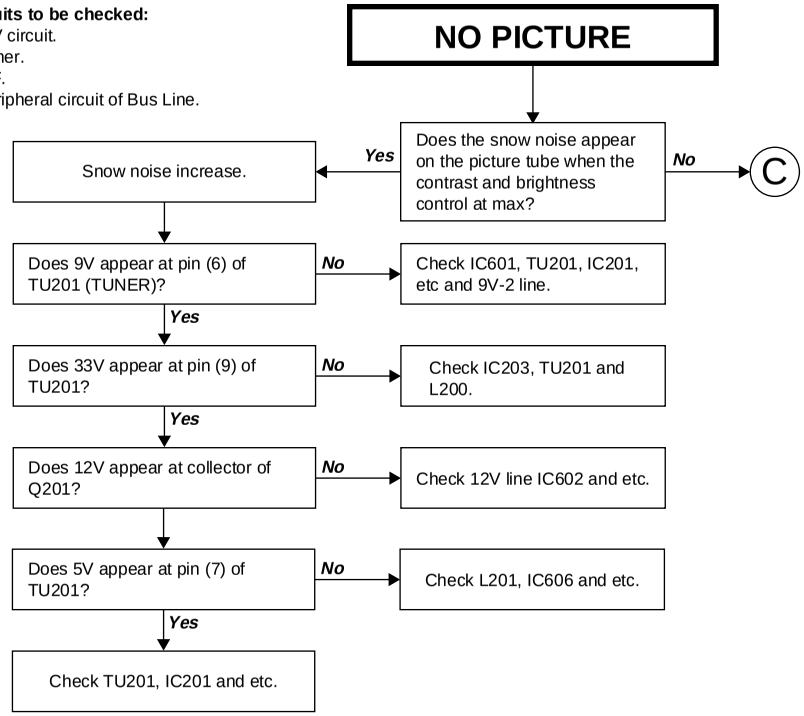




Other pattern: Other I²C bus control IC or unit. (It has SDA and SCL PORT.)

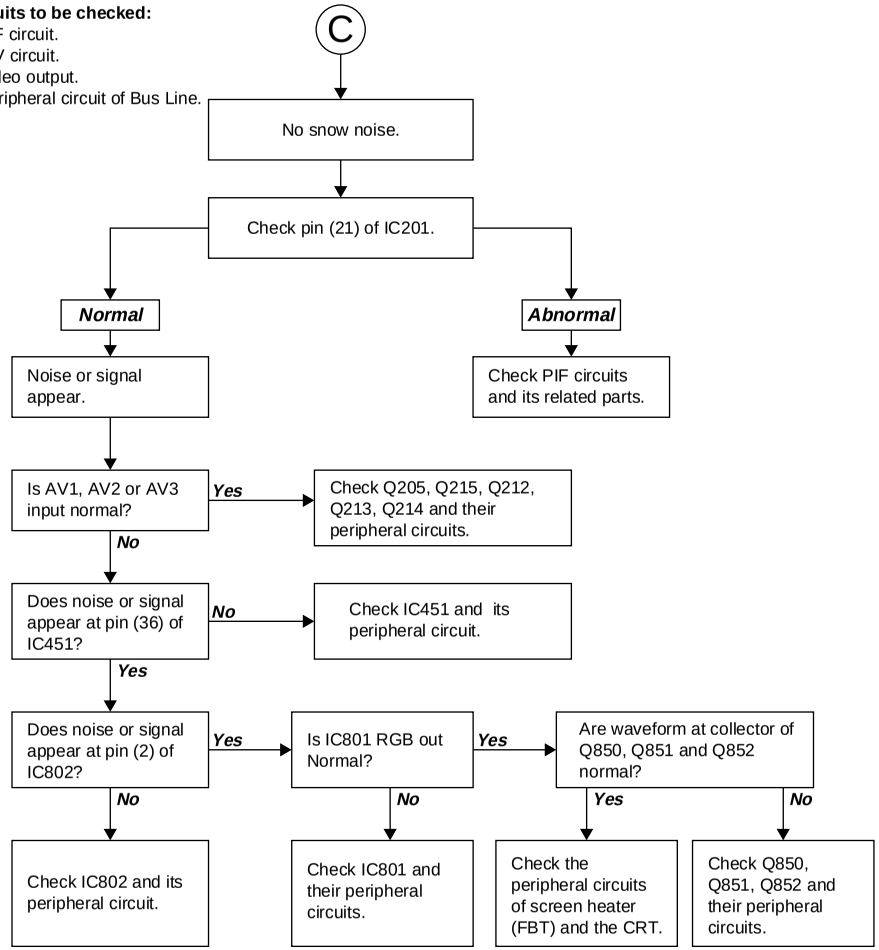
TROUBLE SHOOTING TABLE (Continued)

Circuits to be checked:
- A/V circuit.
- Tuner.
- PIF.
- Peripheral circuit of Bus Line.


NO PICTURE
Does the snow noise appear on the picture tube when the contrast and brightness control at max?
Yes
No
C
Snow noise increase.
Does 9V appear at pin (6) of TU201 (TUNER)?
No
Check IC601, TU201, IC201, etc and 9V-2 line.
Yes
Does 33V appear at pin (9) of TU201?
No
Check IC203, TU201 and L200.
Yes
Does 12V appear at collector of Q201?
No
Check 12V line IC602 and etc.
Yes
Does 5V appear at pin (7) of TU201?
No
Check L201, IC606 and etc.
Yes
Check TU201, IC201 and etc.

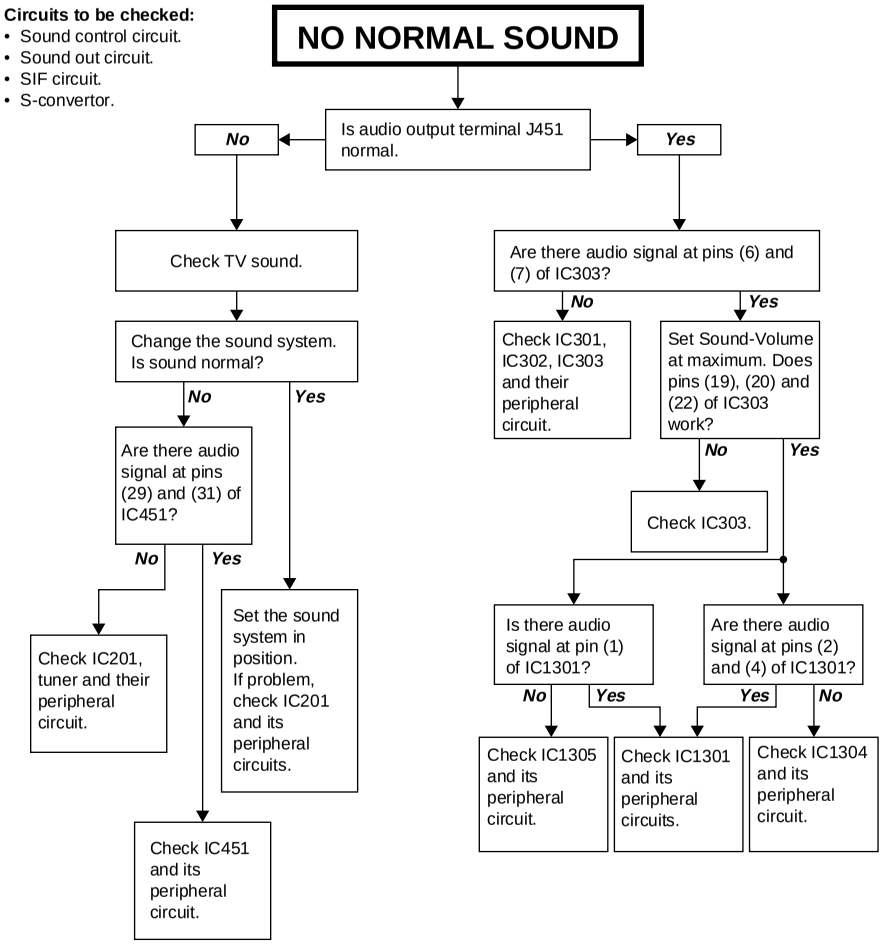
TROUBLE SHOOTING TABLE (Continued)

Circuits to be checked:
- PIF circuit.
- A/V circuit.
- Video output.
- Peripheral circuit of Bus Line.

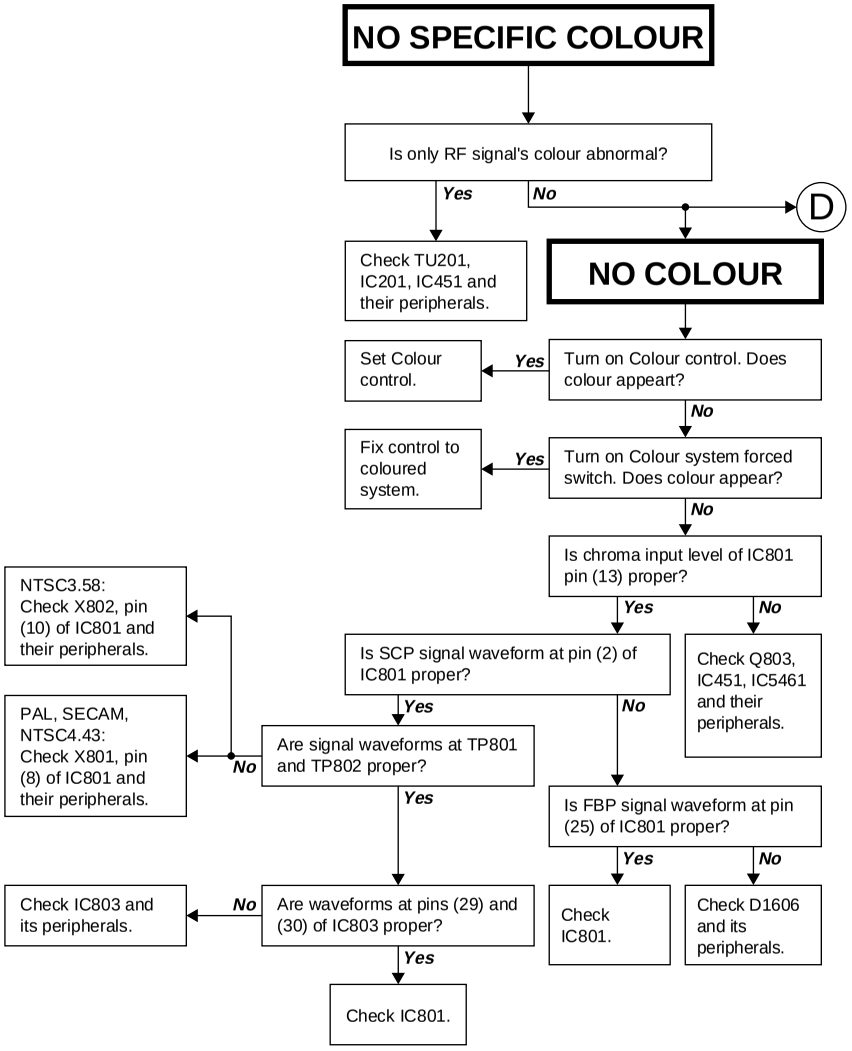

C
No snow noise.
Check pin (21) of IC201.
Normal
Abnormal
Noise or signal appear.
Check PIF circuits and its related parts.
Is AV1, AV2 or AV3 input normal?
Yes
Check Q205, Q215, Q212, Q213, Q214 and their peripheral circuits.
No
Does noise or signal appear at pin (36) of IC451?
No
Check IC451 and its peripheral circuit.
Yes
Does noise or signal appear at pin (2) of IC802?
Yes
Is IC801 RGB out Normal?
Yes
Are waveform at collector of Q850, Q851 and Q852 normal?
No
Check IC802 and its peripheral circuit.
No
Check IC801 and their peripheral circuits.
Yes
Check the peripheral circuits of screen heater (FBT) and the CRT.
No
Check Q850, Q851, Q852 and their peripheral circuits.

TROUBLE SHOOTING TABLE (Continued)

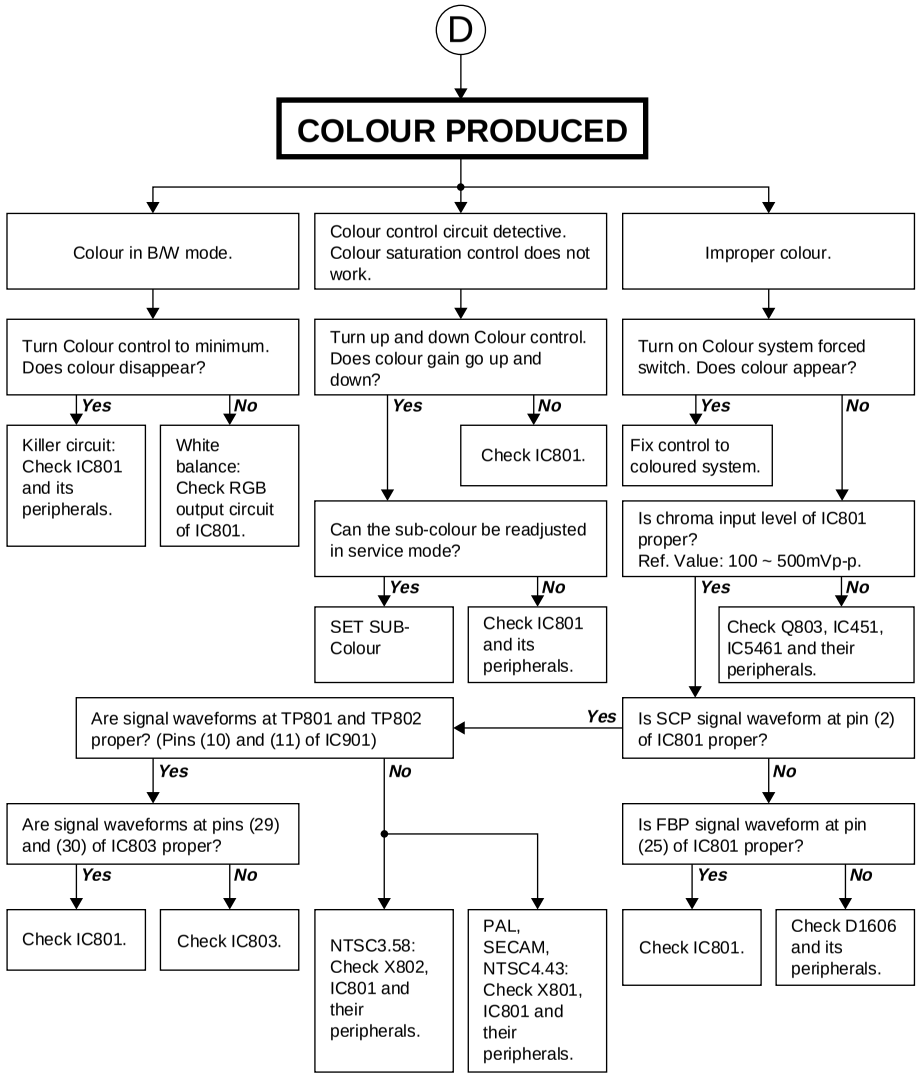
Circuits to be checked:
- Sound control circuit.
- Sound out circuit.
- SIF circuit.
- S-convertor.


NO NORMAL SOUND
Is audio output terminal J451 normal.
No
Yes
Check TV sound.
Change the sound system. Is sound normal?
No
Yes
Are there audio signal at pins (29) and (31) of IC451?
No
Yes
Check IC201, tuner and their peripheral circuit.
Set the sound system in position. If problem, check IC201 and its peripheral circuits.
Check IC451 and its peripheral circuit.
Are there audio signal at pins (6) and (7) of IC303?
No
Yes
Check IC301, IC302, IC303 and their peripheral circuit.
Set Sound-Volume at maximum. Does pins (19), (20) and (22) of IC303 work?
No
Yes
Check IC303.
Is there audio signal at pin (1) of IC1301?
No
Yes
Are there audio signal at pins (2) and (4) of IC1301?
Yes
No
Check IC1305 and its peripheral circuit.
Check IC1301 and its peripheral circuits.
Check IC1304 and its peripheral circuit.

TROUBLE SHOOTING TABLE (Continued)

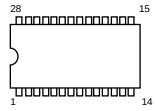

NO SPECIFIC COLOUR
Is only RF signal's colour abnormal?
Yes
No
D
Check TU201, IC201, IC451 and their peripherals.
NO COLOUR
Set Colour control.
Yes
Turn on Colour control. Does colour appear?
No
Fix control to coloured system.
Yes
Turn on Colour system forced switch. Does colour appear?
No
Is chroma input level of IC801 pin (13) proper?
Yes
No
NTSC3.58: Check X802, pin (10) of IC801 and their peripherals.
Is SCP signal waveform at pin (2) of IC801 proper?
Check Q803, IC451, IC5461 and their peripherals.
Yes
No
PAL, SECAM, NTSC4.43: Check X801, pin (8) of IC801 and their peripherals.
No
Are signal waveforms at TP801 and TP802 proper?
Yes
Is FBP signal waveform at pin (25) of IC801 proper?
Yes
No
Check IC803 and its peripherals.
No
Are waveforms at pins (29) and (30) of IC803 proper?
Check IC801.
Check D1606 and its peripherals.
Yes
Check IC801.

TROUBLE SHOOTING TABLE (Continued)


D
COLOUR PRODUCED
Colour in B/W mode.
Colour control circuit detective. Colour saturation control does not work.
Improper colour.
Turn Colour control to minimum. Does colour disappear?
Turn up and down Colour control. Does colour gain go up and down?
Turn on Colour system forced switch. Does colour appear?
Yes
No
Killer circuit: Check IC801 and its peripherals.
White balance: Check RGB output circuit of IC801.
Check IC801.
Fix control to coloured system.
Can the sub-colour be readjusted in service mode?
Is chroma input level of IC801 proper? Ref. Value: 100 ~ 500mVp-p.
SET SUB-Colour
Check IC801 and its peripherals.
Check Q803, IC451, IC5461 and their peripherals.
Are signal waveforms at TP801 and TP802 proper? (Pins (10) and (11) of IC901)
Is SCP signal waveform at pin (2) of IC801 proper?
Are signal waveforms at pins (29) and (30) of IC803 proper?
Is FBP signal waveform at pin (25) of IC801 proper?
Check IC801.
Check IC803.
NTSC3.58: Check X802, IC801 and their peripherals.
PAL, SECAM, NTSC4.43: Check X801, IC801 and their peripherals.
Check D1606 and its peripherals.

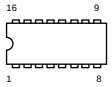
SOLID STATE DEVICE BASE DIAGRAM

TOP VIEW

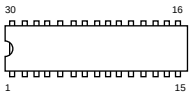


VHiTC9090AN-1

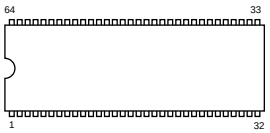
VHiTA8814N/-1
VHiAN7397K/-1



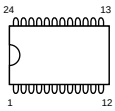
VHiTA8859CP-1
VHiAN7108//-1



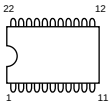
VHiTA8776N/-1
VHiTA8772AN-1



RH-iX3081CEN3



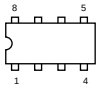
VHiTA1229N-1



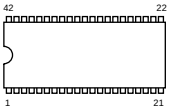
VHiBA7357S/-1

RH-FX0024CEZZ

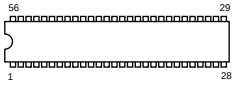
RH-iX0249CEZZ



VHiUPC358C/-1
VHiM24C08B/-1
VHiT0P209//-1

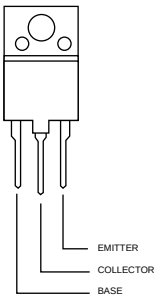


VHiTA1218AN-1

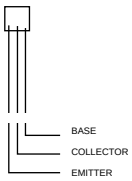


RH-iX2915CEZZ

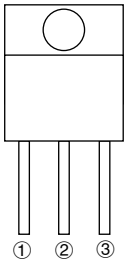
SIDE VIEW



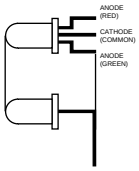
VS2SD1887//-1
VS2SD2045//-1
RH-DX0449CEZZ
VS2SC4544LB1E
VS2SA1837//-1



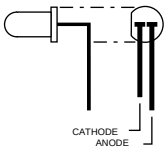
VS2SA1015G/1E
VS2SA1015Y/1E
VS2SC1815GW-1
VS2SC1815YW-1
VS2SC2482//-1



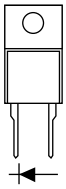
VHiSi3121N/-1
VHiKA7805Pi-1
VHiKA7809Pi-1
VHiSE120N//-1



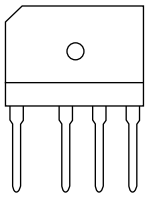
PX0003CE



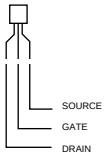
PX0274CE



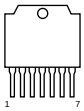
RH-DX0486CEZZ
RH-DX0355CEZZ
RH-DX0452CEZZ



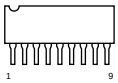
RH-DX0336CEZZ



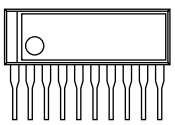
VS2SK583///-1



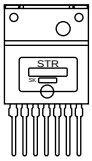
VHiTA8427K-1



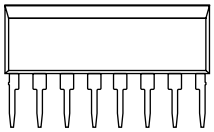
VHiTA7348P/-1



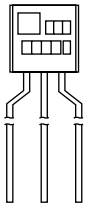
VHiK5285K/-1



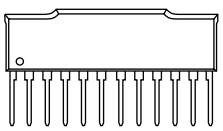
VHiSTRM6821-1



VHiM51497L/-1

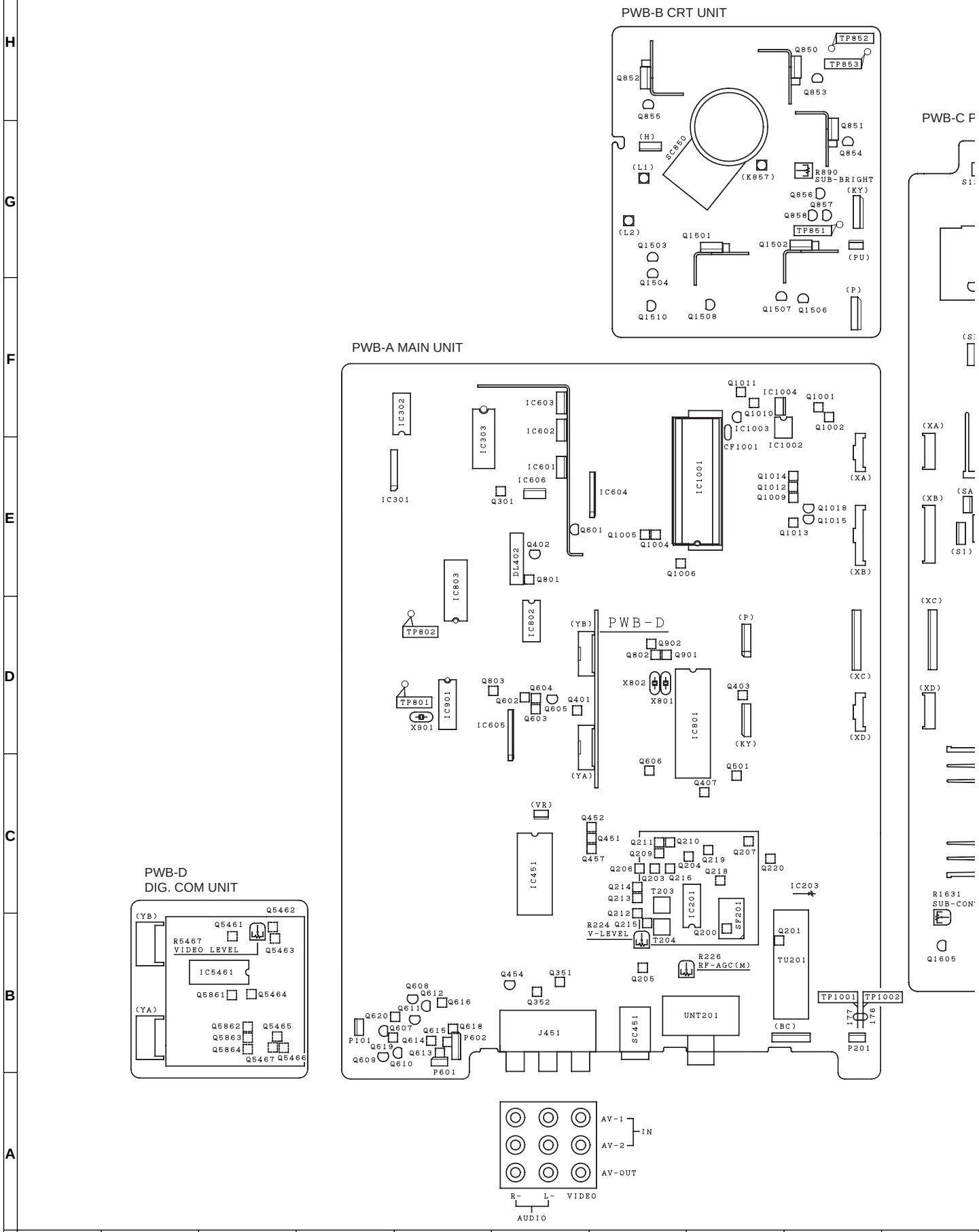


VHiPST994C/-1

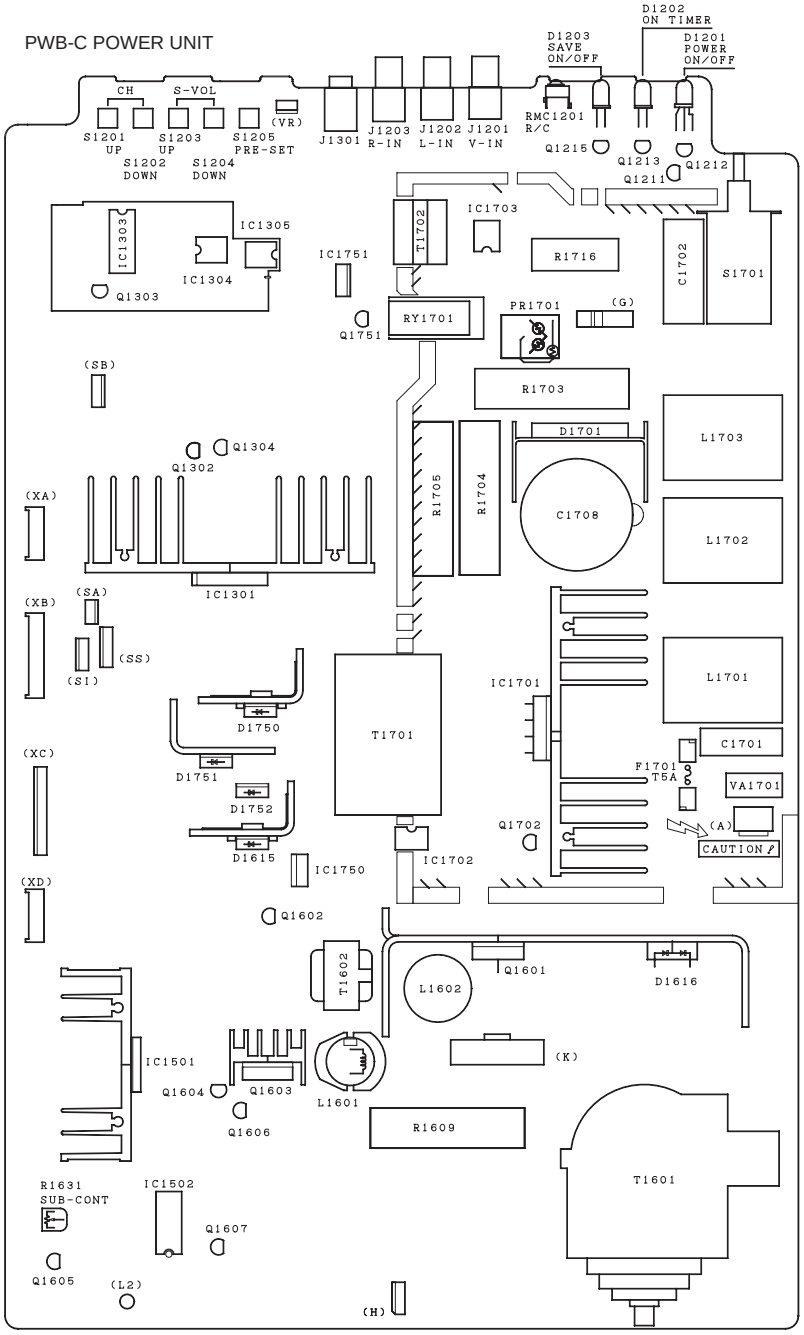


VHiTA8256H/-1

CHASSIS LAYOUT



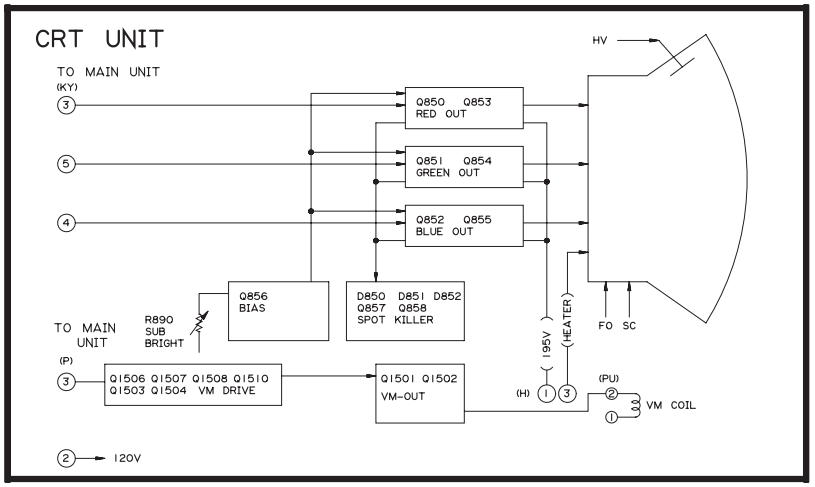
PWB-C POWER UNIT

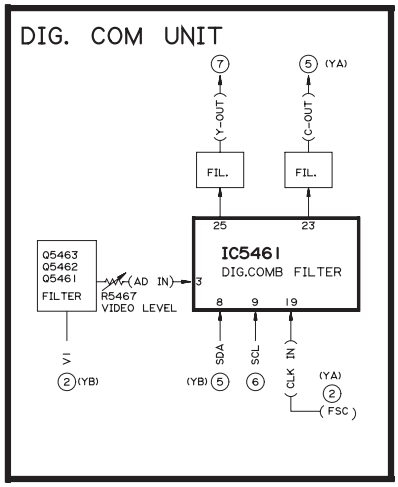


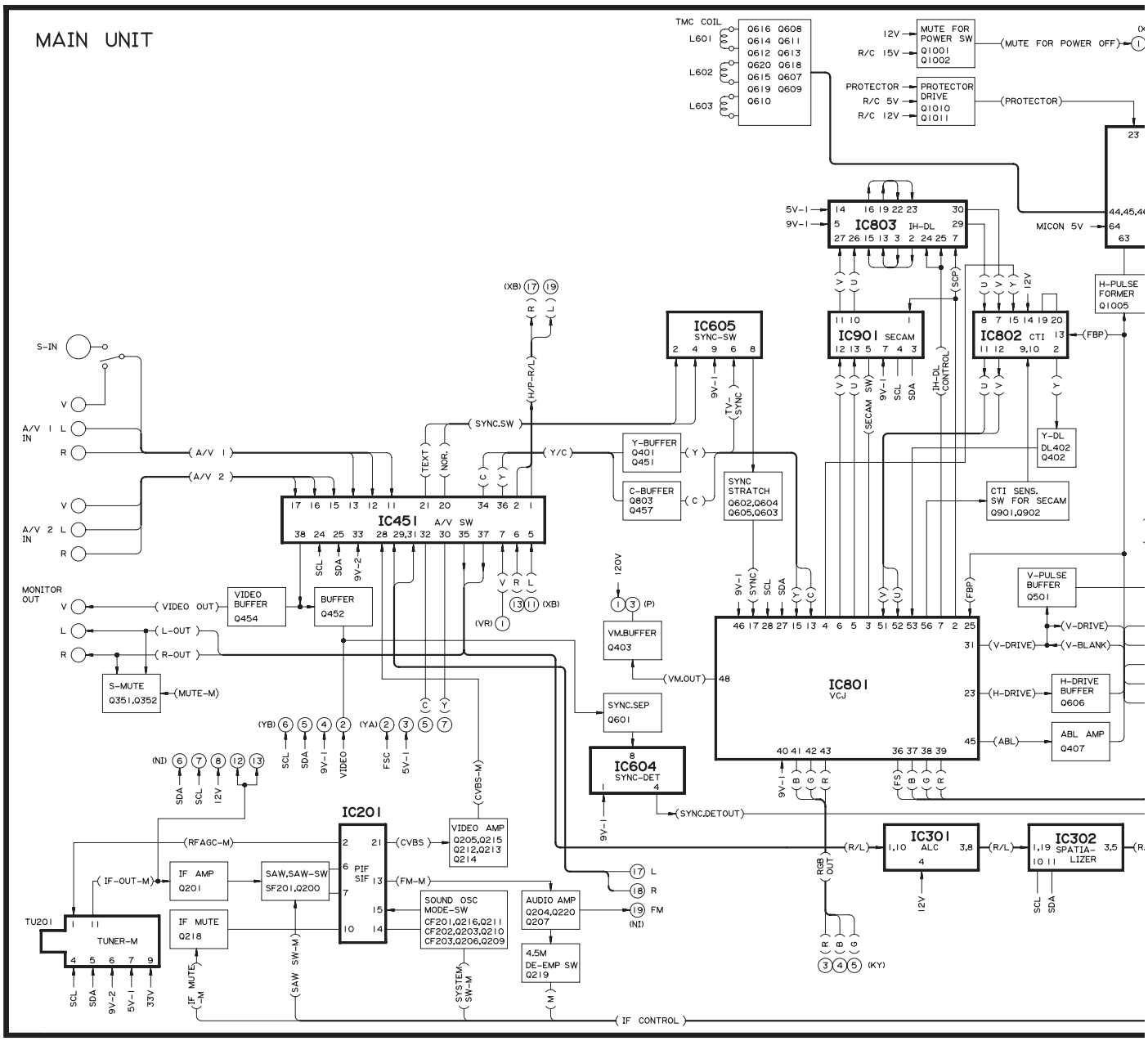
1002

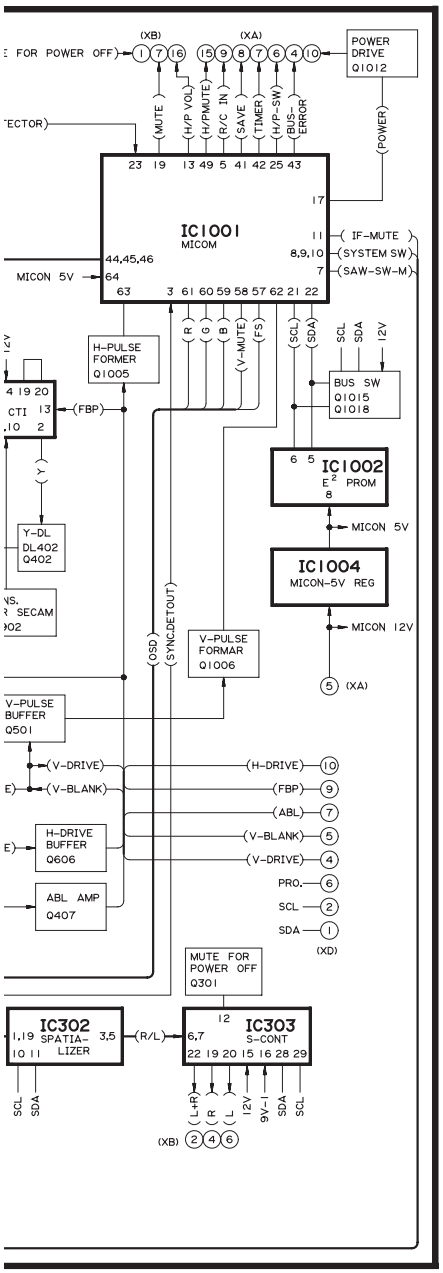
10	11	12	13	14	15	16	17	18	19

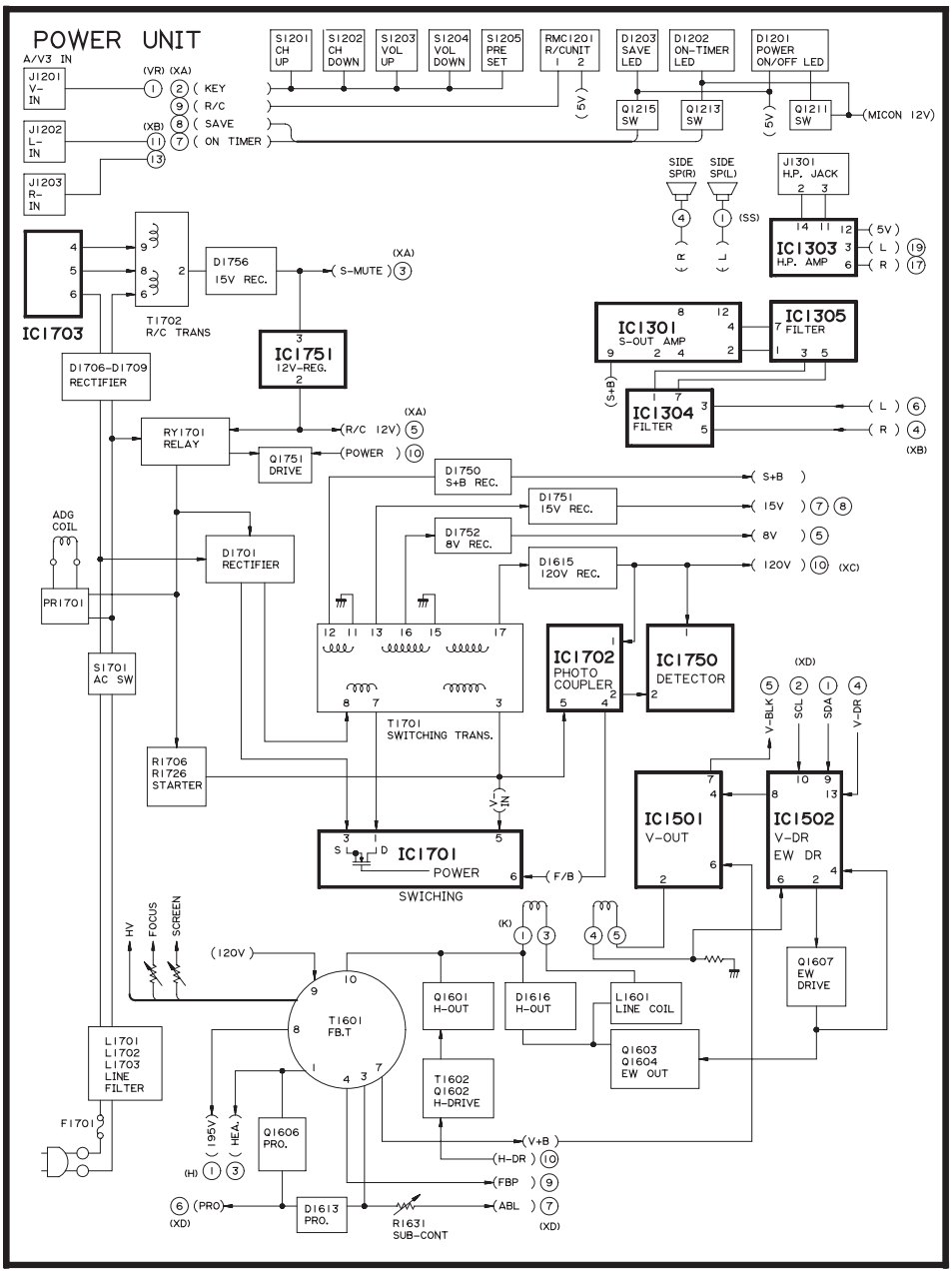
BLOCK DIAGRAM





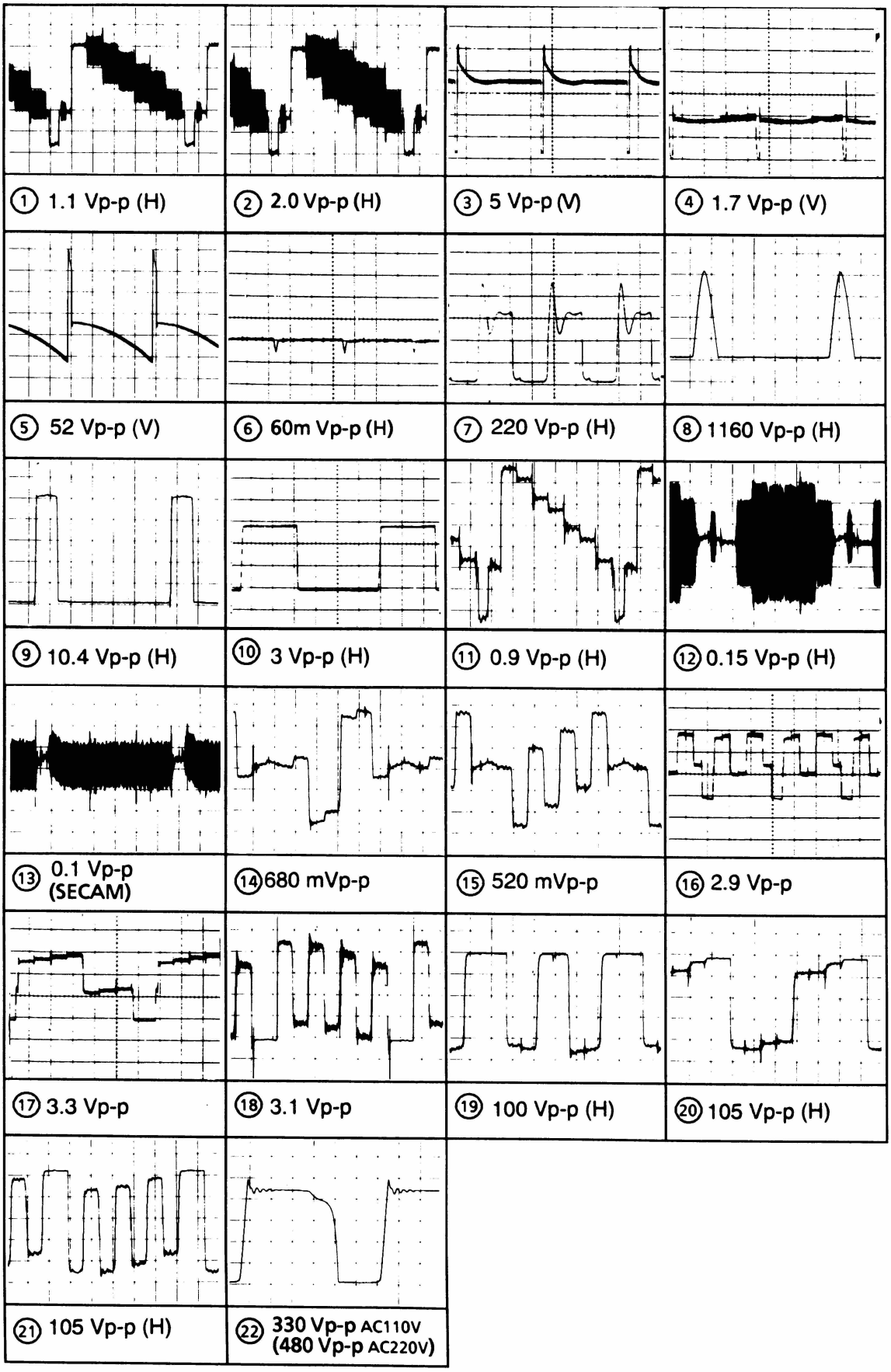






10	11	12	13	14	15	16	17	18	19

WAVEFORMS



① 1.1 Vp-p (H)
② 2.0 Vp-p (H)
③ 5 Vp-p (V)
④ 1.7 Vp-p (V)
⑤ 52 Vp-p (V)
⑥ 60m Vp-p (H)
⑦ 220 Vp-p (H)
⑧ 1160 Vp-p (H)
⑨ 10.4 Vp-p (H)
⑩ 3 Vp-p (H)
⑪ 0.9 Vp-p (H)
⑫ 0.15 Vp-p (H)
⑬ 0.1 Vp-p (SECAM)
⑭ 680 mVp-p
⑮ 520 mVp-p
⑯ 2.9 Vp-p
⑰ 3.3 Vp-p
⑱ 3.1 Vp-p
⑲ 100 Vp-p (H)
⑳ 105 Vp-p (H)
㉑ 105 Vp-p (H)
㉒ 330 Vp-p AC110V (480 Vp-p AC220V)

DESCRIPTION OF SCHEMATIC DIAGRAM

CAUTION: This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTES:

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" ( ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE ( ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

NOTES:

1. *The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Meg ohm).*
2. *All resistors are 1/8 watt, unless otherwise noted.*
3. *All capacitors are µF, unless otherwise noted. (P = µµF).*
4. *The diodes, whose parts code is not described, are the 1SS119.*

VOLTAGE MEASUREMENT CONDITIONS:

1. *The voltage without parenthesis represents the value measured with PAL colour signal.*
2. *The voltage in parenthesis represents the value measured with no signal.*
3. *All the voltages were measured by using a high impedance voltmeter.*

WAVEFORM MEASUREMENT CONDITIONS:

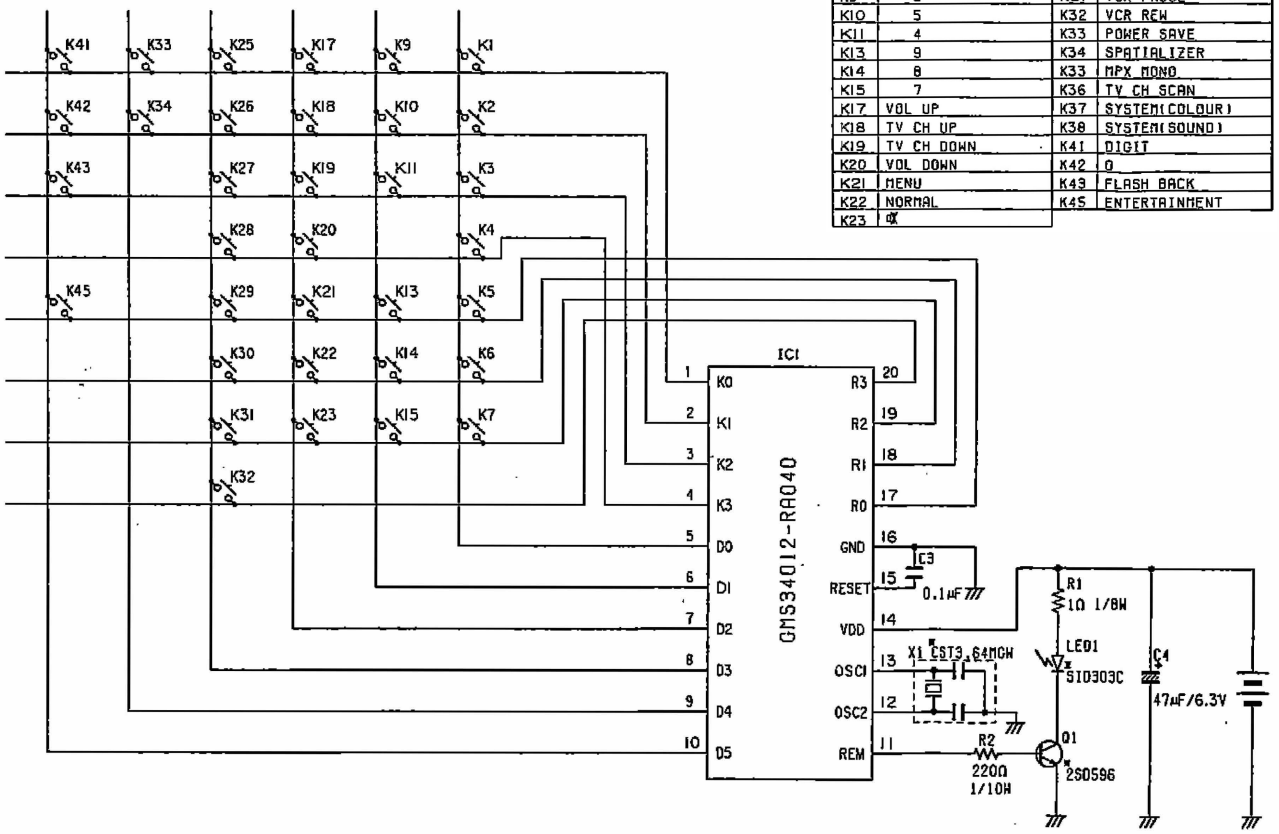
1. *The colour bar signal applied to the TP202 is 2.0 Vp-p.*
2. *The tuner AGC voltage is approximately 4V.*

■ Infrared Remote Control Unit

RRMCG1529PESA

NOTE: The parts here shown are supplied as an assembly but not independently.

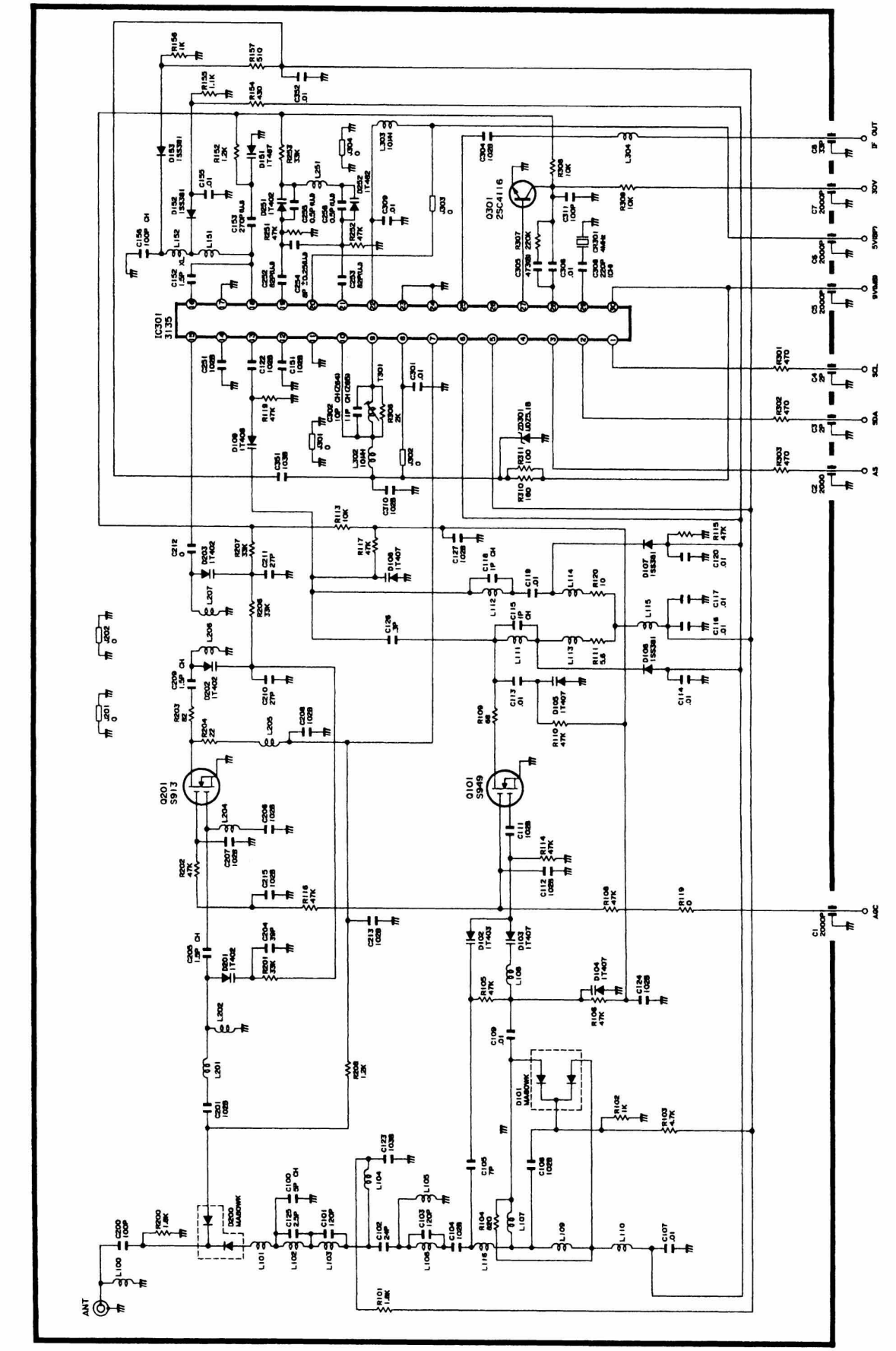
Key No.	FUNCTION	Key No.	FUNCTION
K1	TV/VIDEO	K3	⏻
K2	📻	K25	VCR CH UP
K3	VCR POWER	K26	VCR FF
K4	TV POWER	K27	VCR PLAY
K5	3	K28	VCR STOP
K6	2	K29	VCR CH DOWN
K7	1	K30	VCR REC
K9	6	K31	VCR PAUSE
K10	5	K32	VCR REW
K11	4	K33	POWER SAVE
K13	9	K34	SPATIALIZER
K14	8	K33	MPX MONO
K15	7	K36	TV CH SCAN
K17	VOL UP	K37	SYSTEM(COLOUR)
K18	TV CH UP	K38	SYSTEM(SOUND)
K19	TV CH DOWN	K41	DIGIT
K20	VOL DOWN	K42	0
K21	MENU	K43	FLASH BACK
K22	NORMAL	K45	ENTERTAINMENT
K23	🔇		



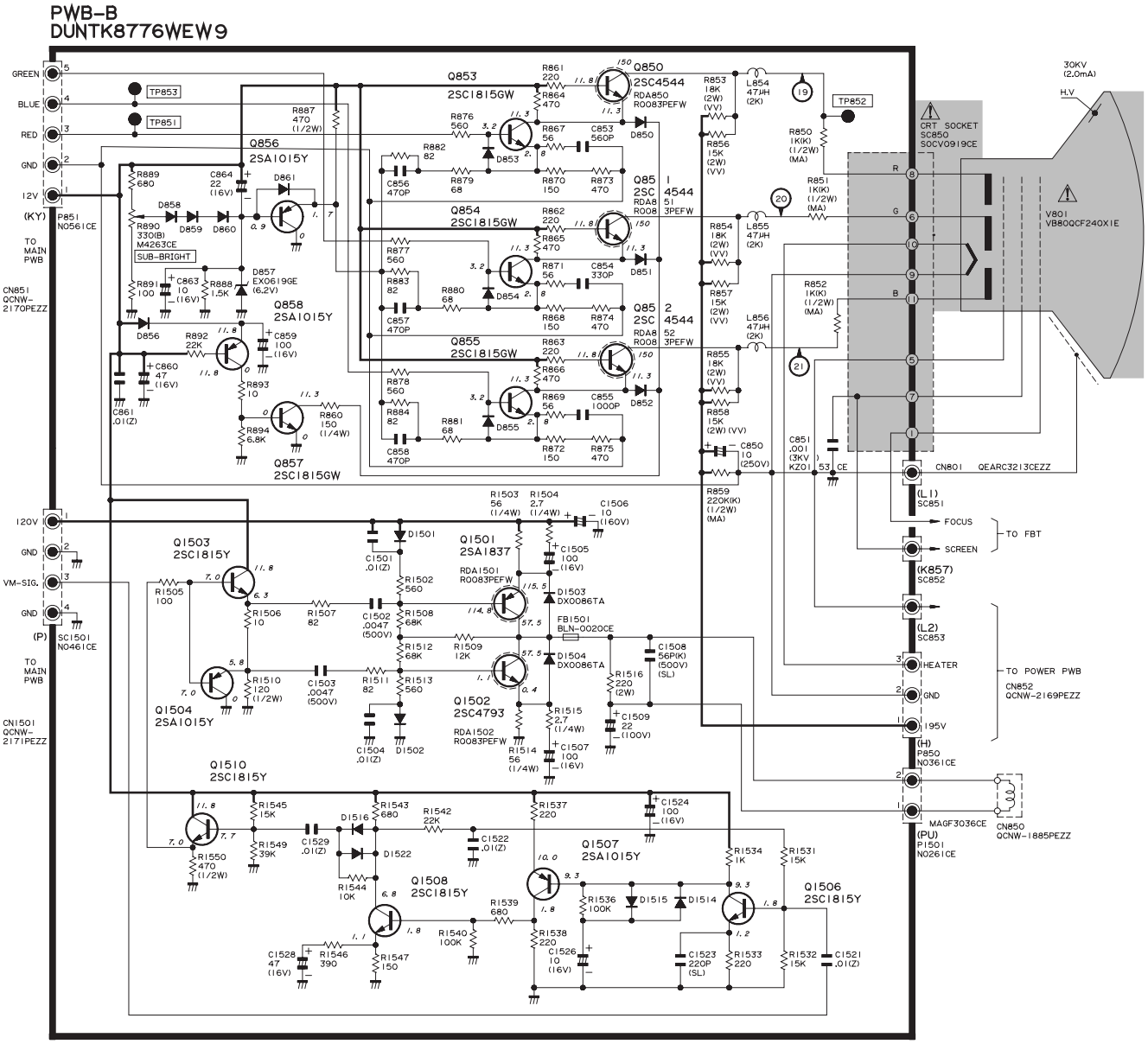
■ Tuner

NOTE: The parts here shown are supplied as an assembly but not independently.

⚠VTUVTST6HZ64/

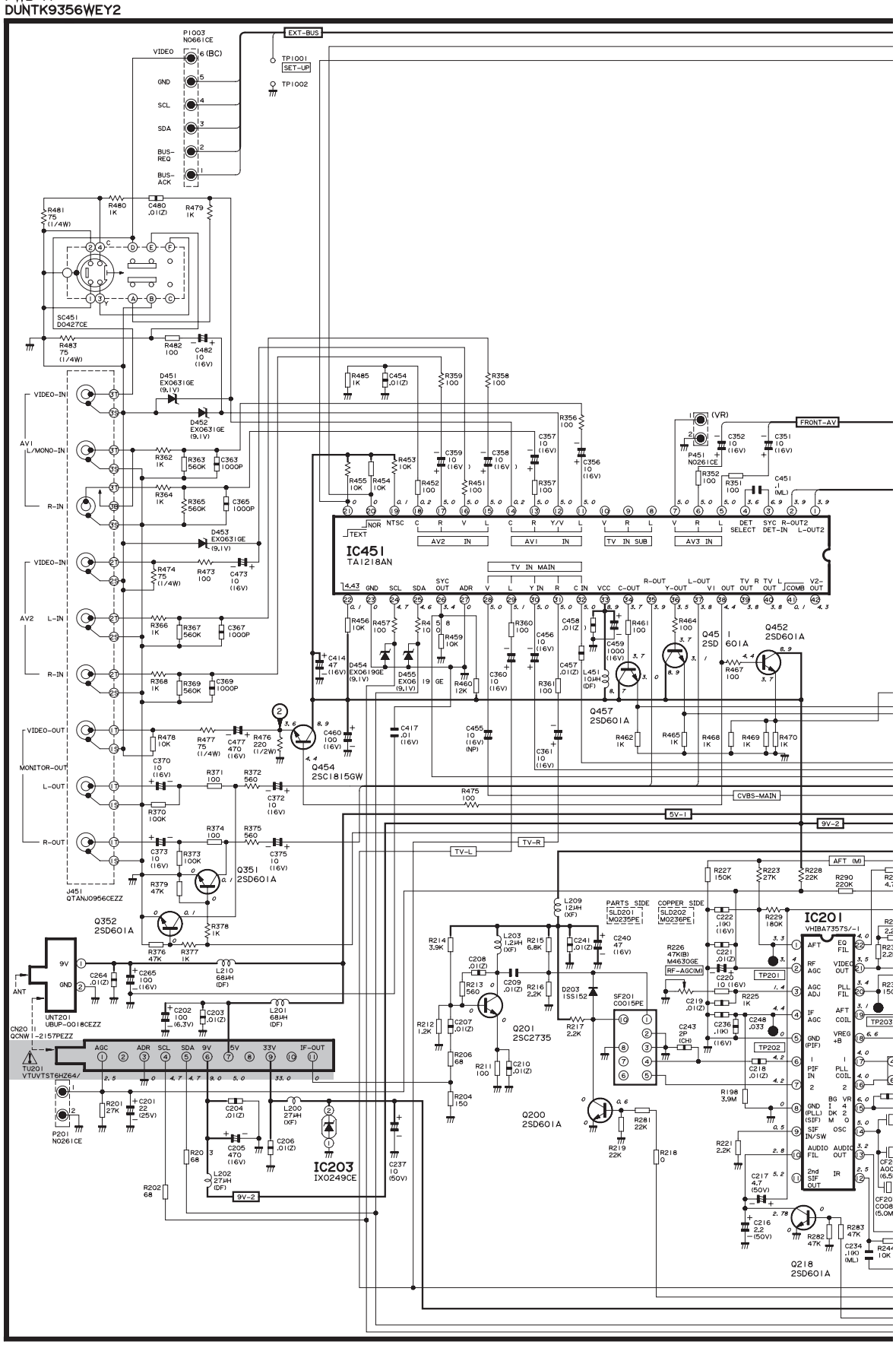


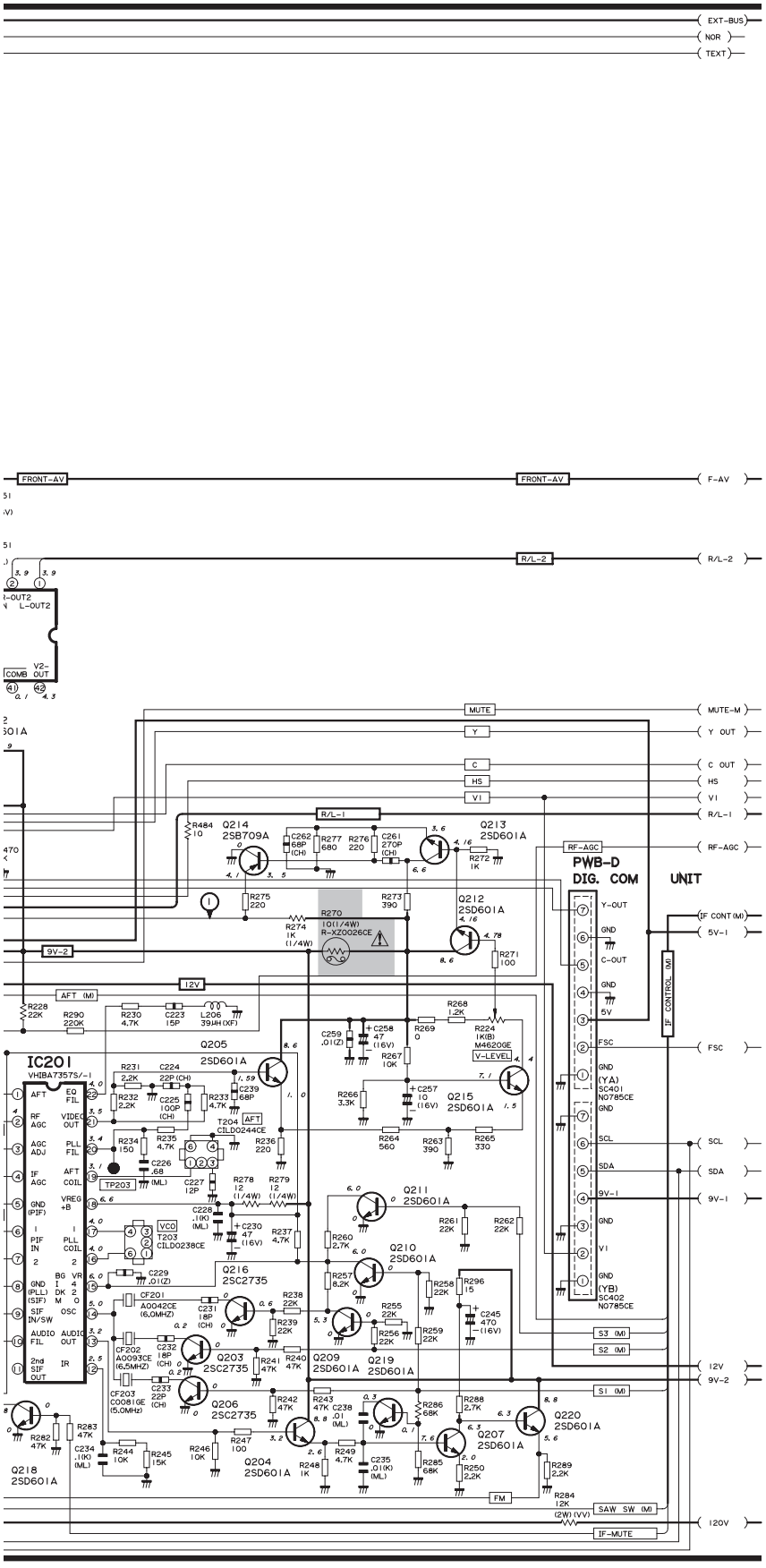
SCHEMATIC DIAGRAM: CRT Unit



SCHEMATIC DIAGRAM: MAIN-1 Unit

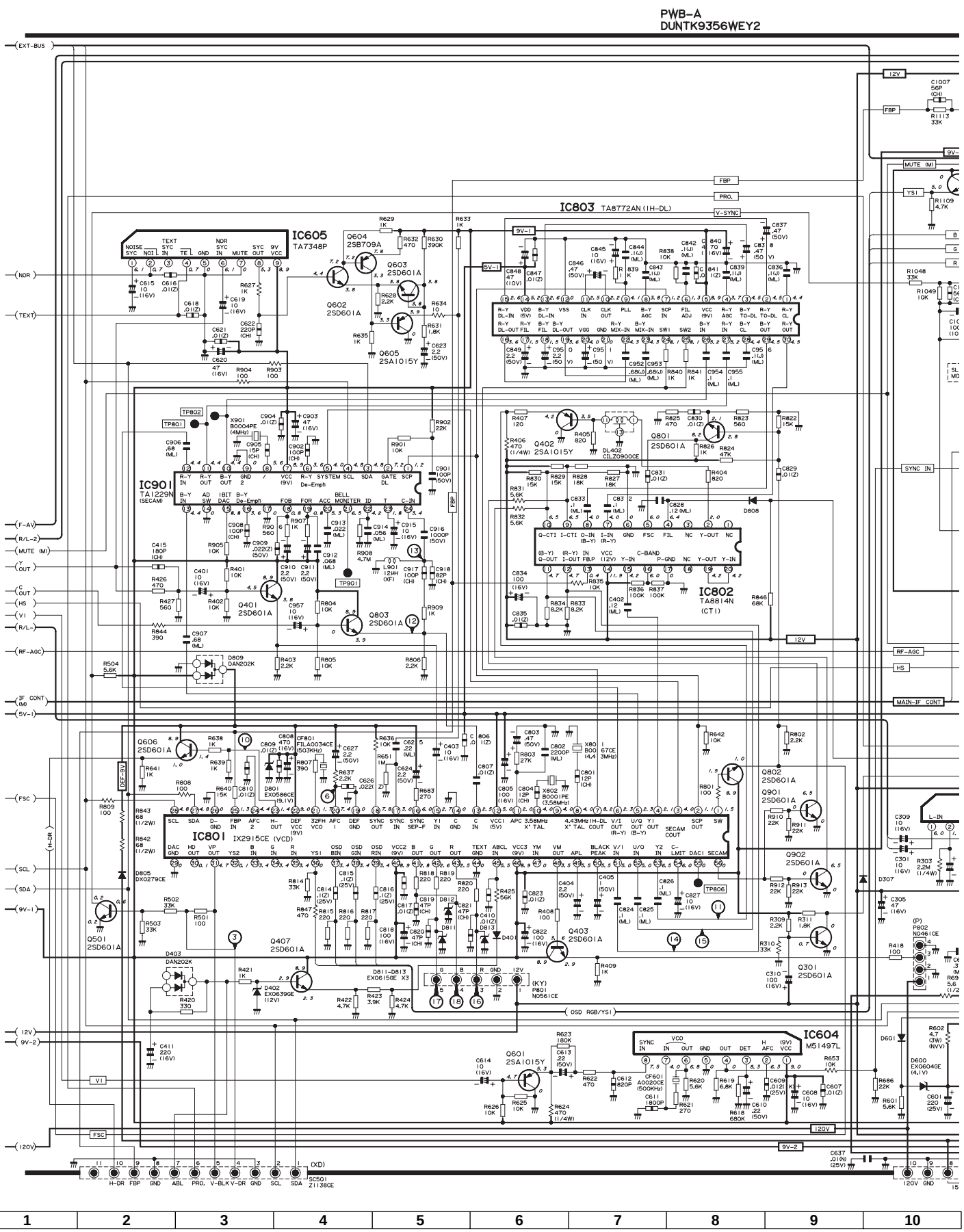
PWB–A
DUNTK9356WEY2

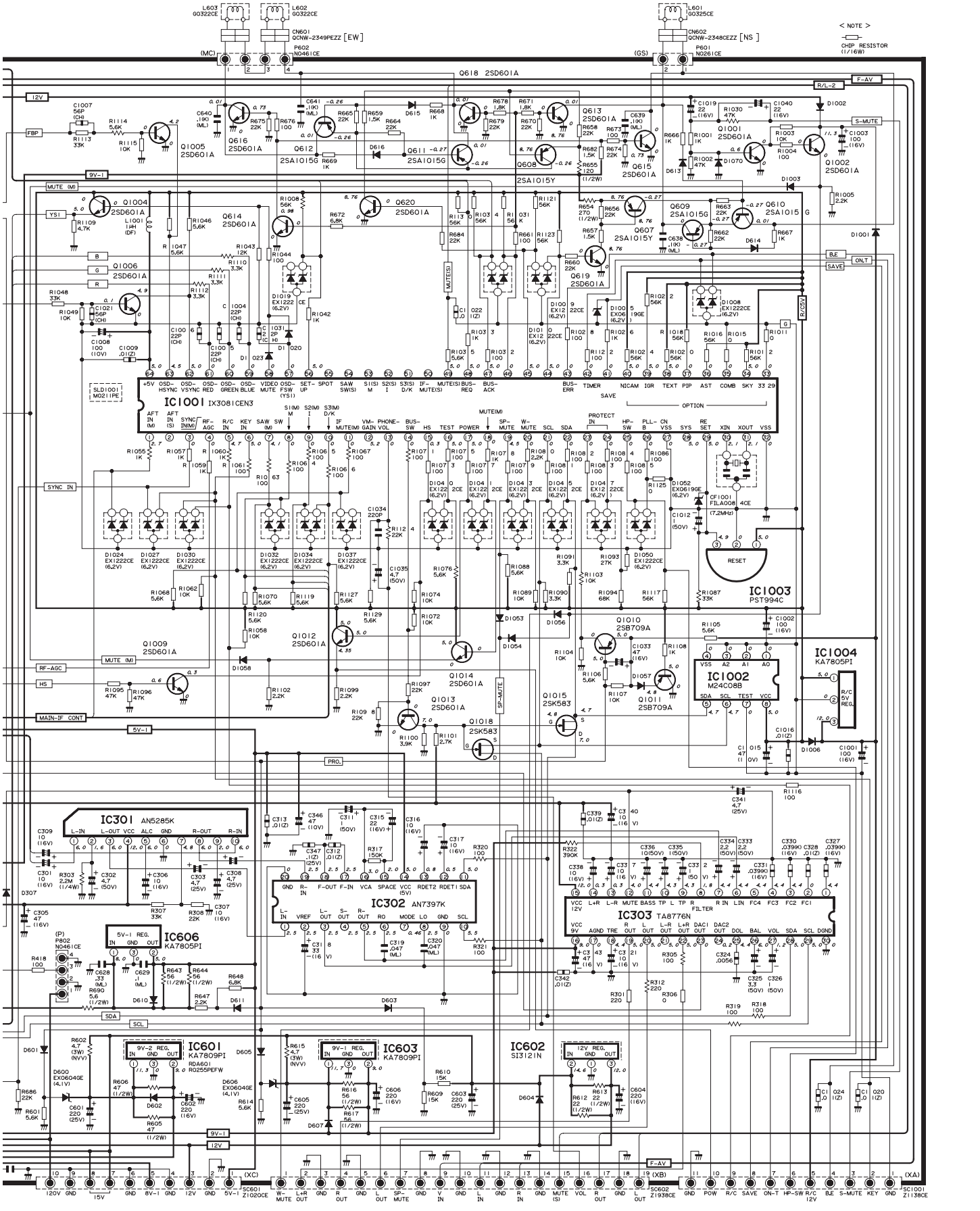




10	11	12	13	14	15	16	17	18	19

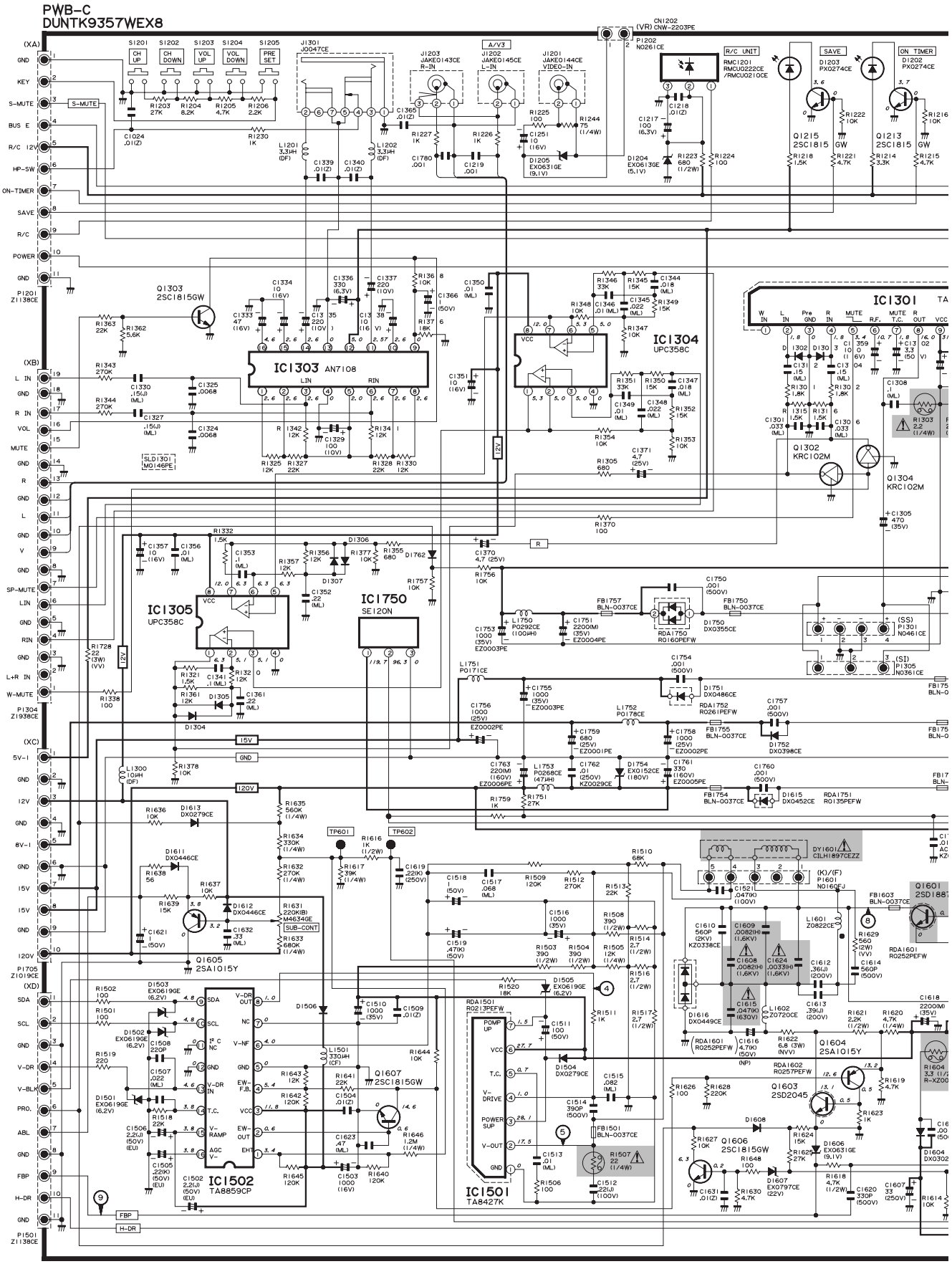
SCHEMATIC DIAGRAM: MAIN-2 Unit

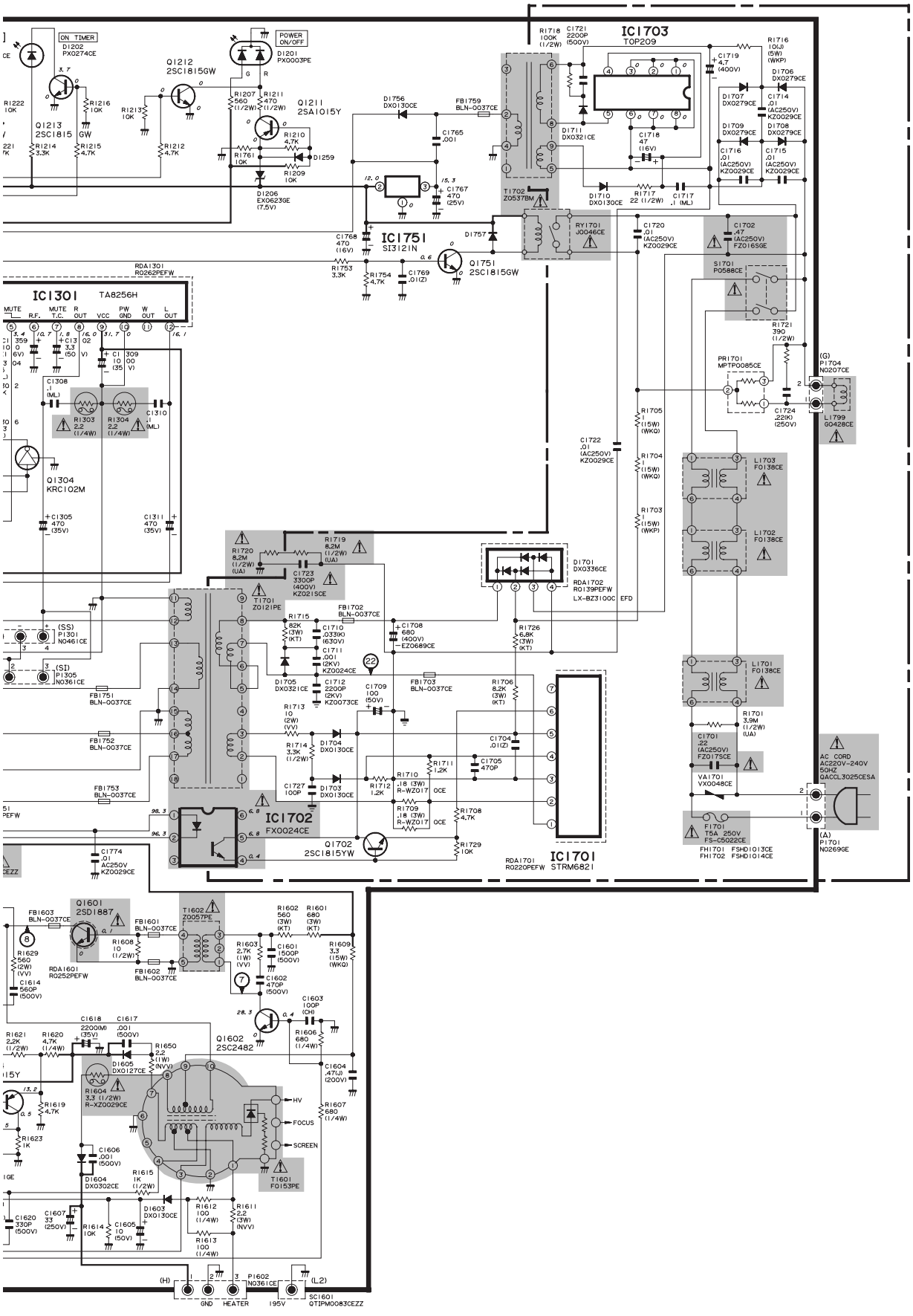




10	11	12	13	14	15	16	17	18	19

SCHEMATIC DIAGRAM: POWER Unit

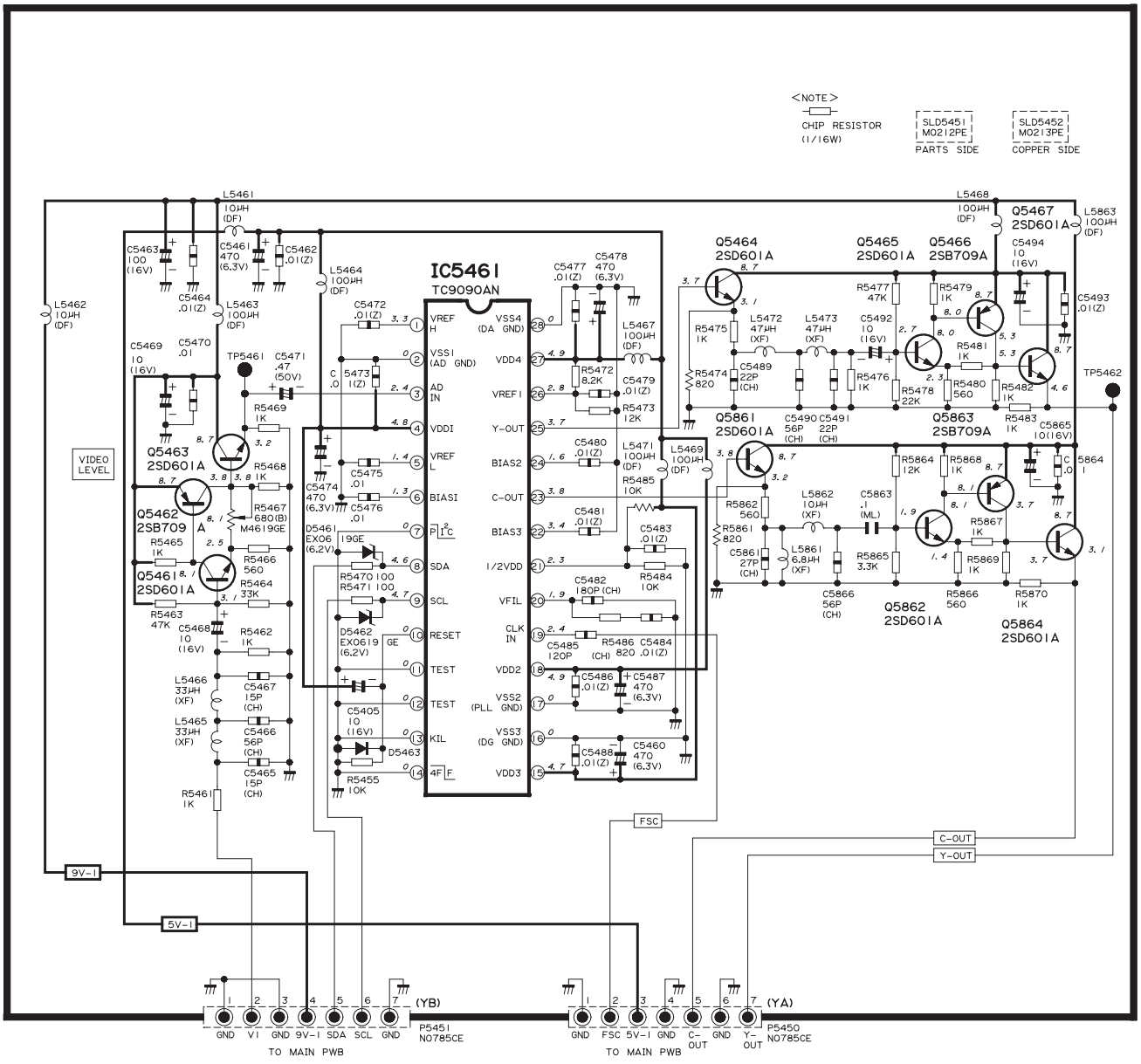




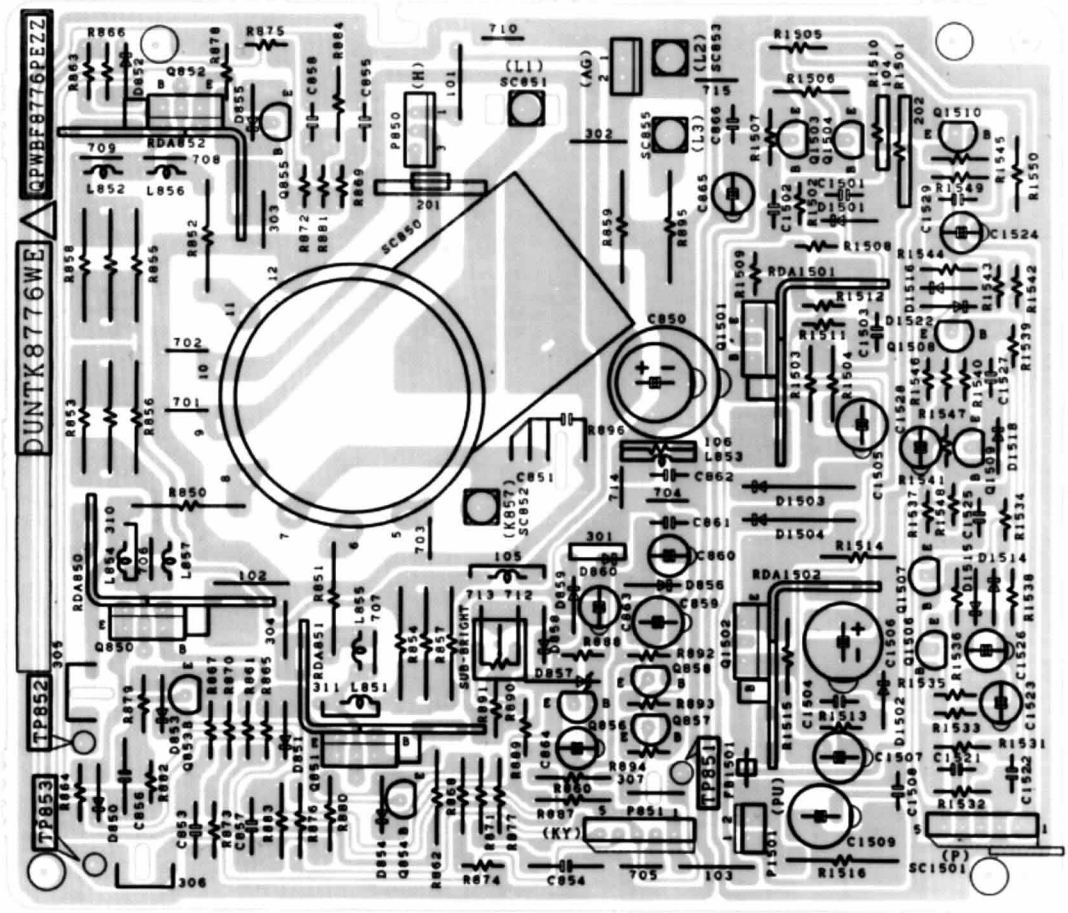
10	11	12	13	14	15	16	17	18	19

SCHEMATIC DIAGRAM: DIG. COM Unit

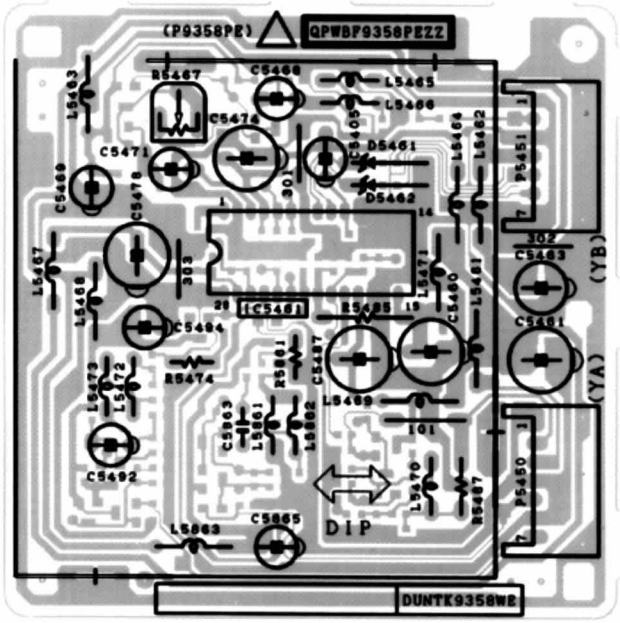
PWB-D
DUNTK9358WEV0



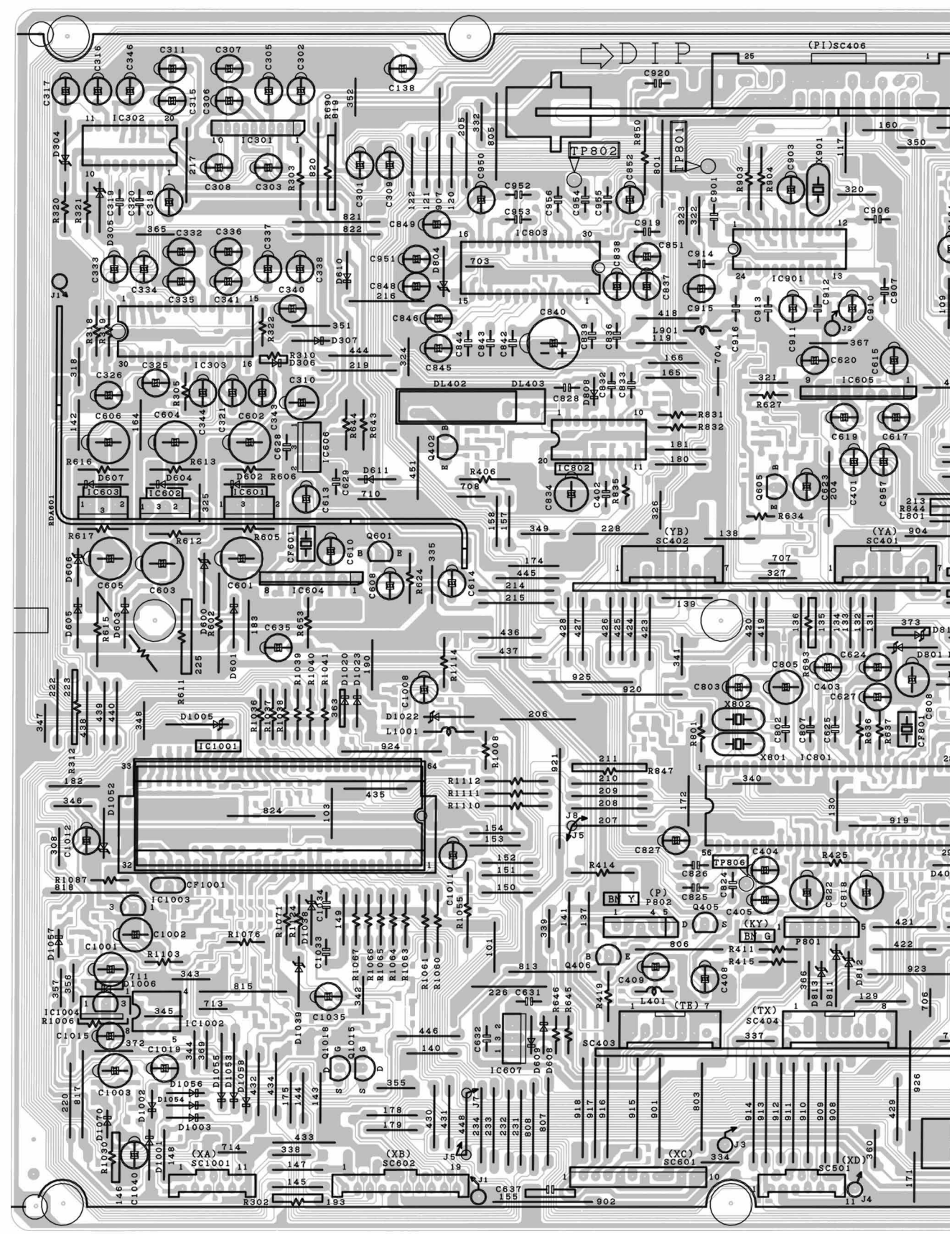
PRINTED WIRING BOARD ASSEMBLIES



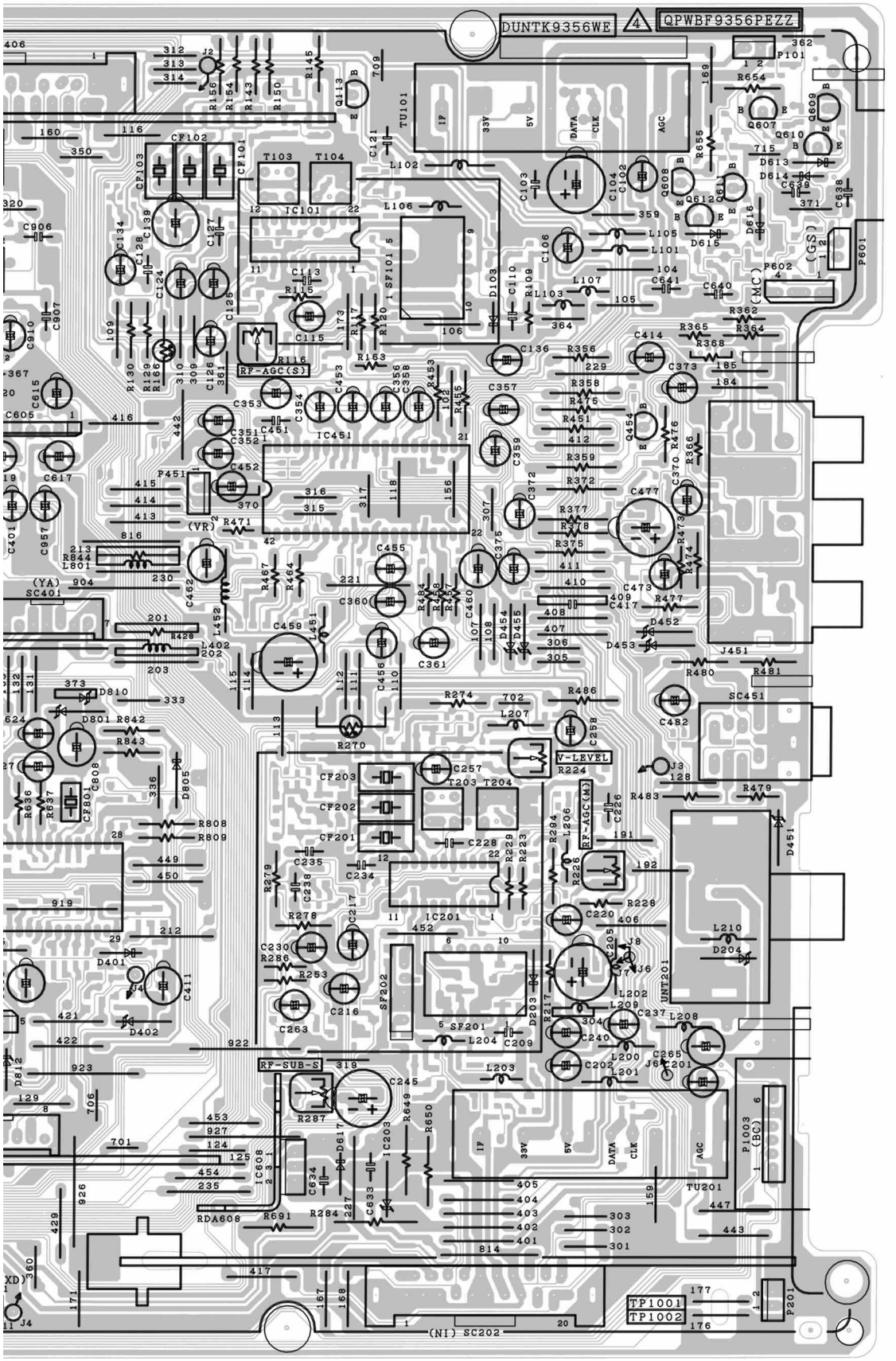
PWB-B: CRT Unit (Wiring Side)



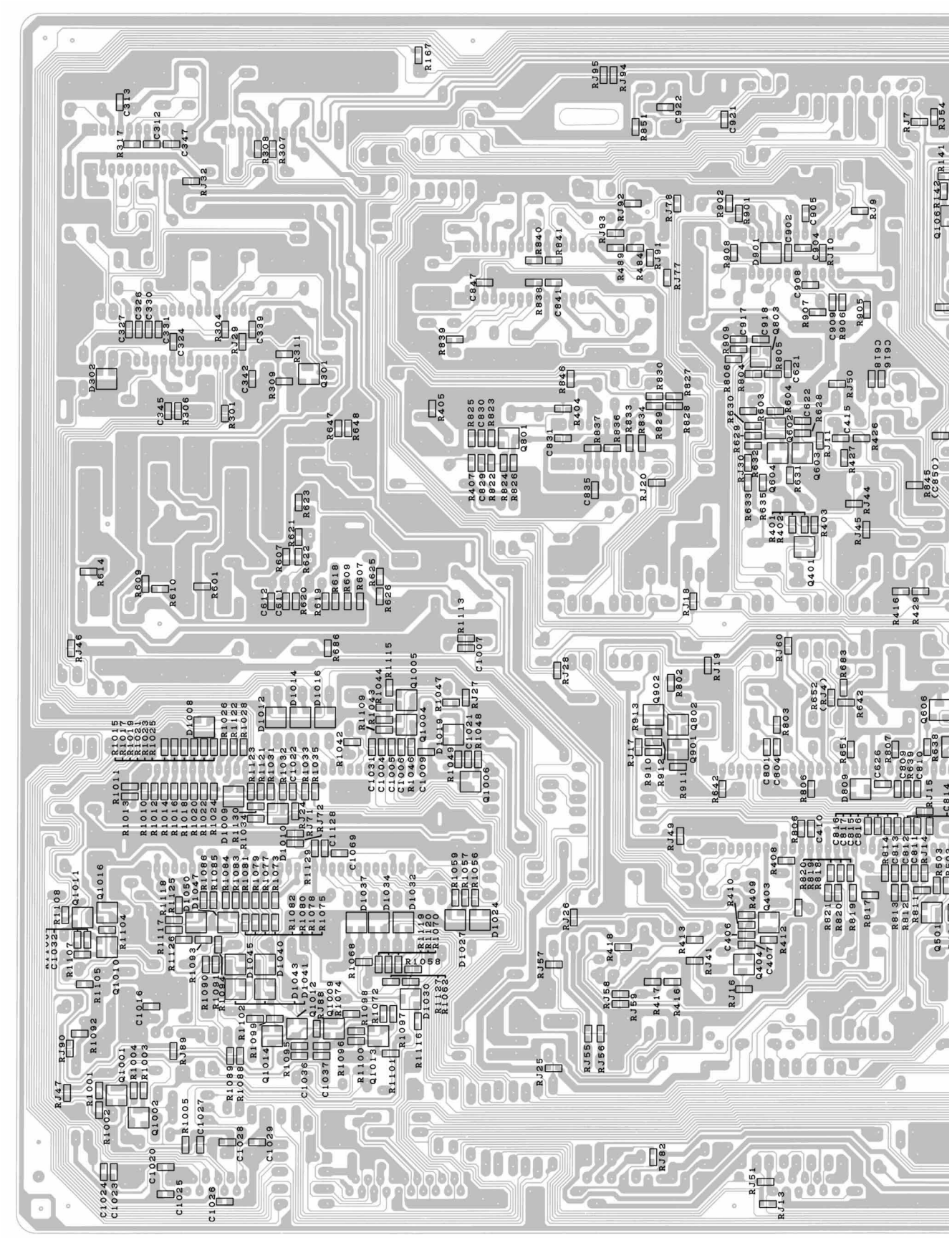
PWB-D: DIG. COM Unit (Wiring Side)



PWB-A: MAIN Unit (Wiring Side)

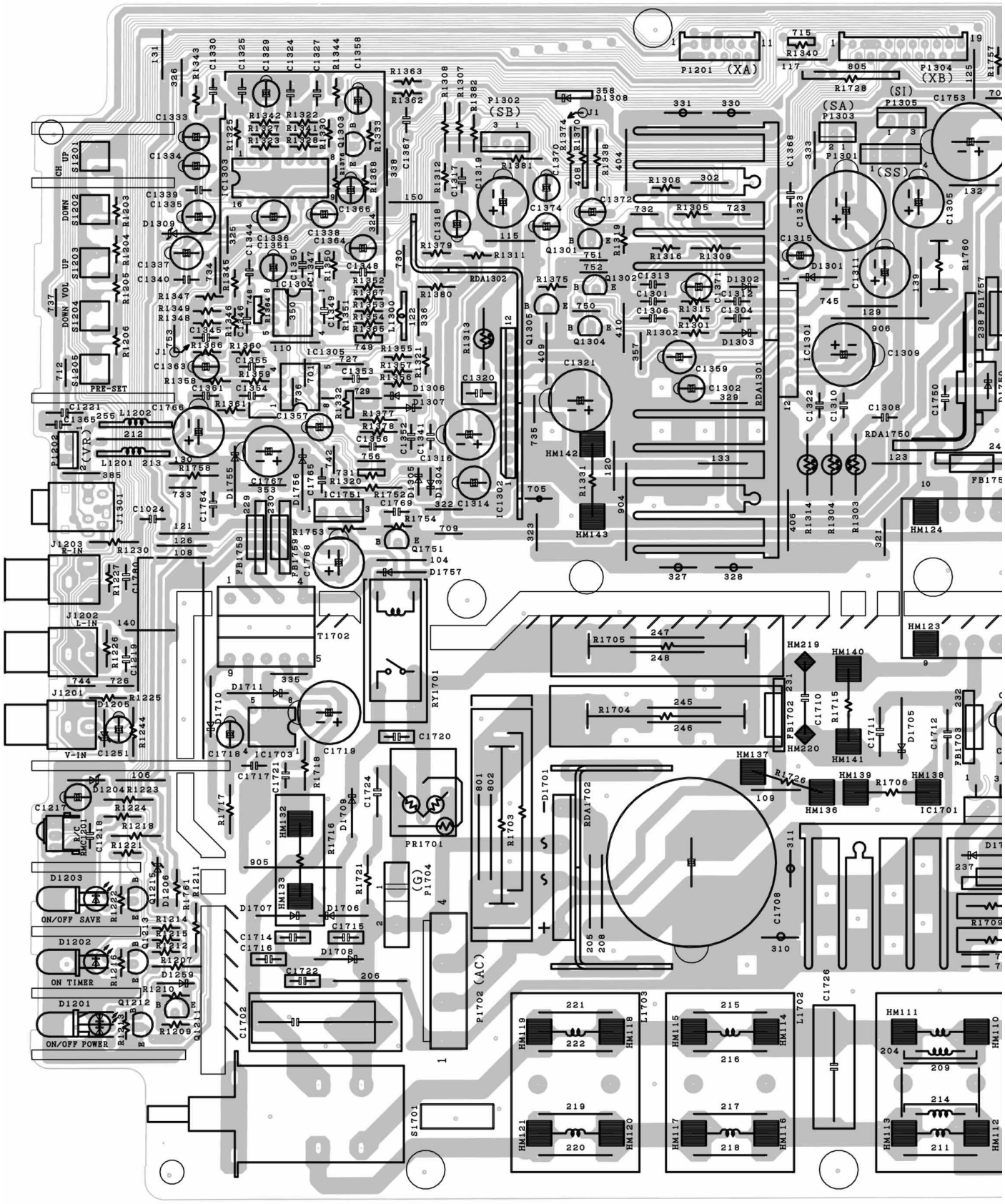


10	11	12	13	14	15	16	17	18	19

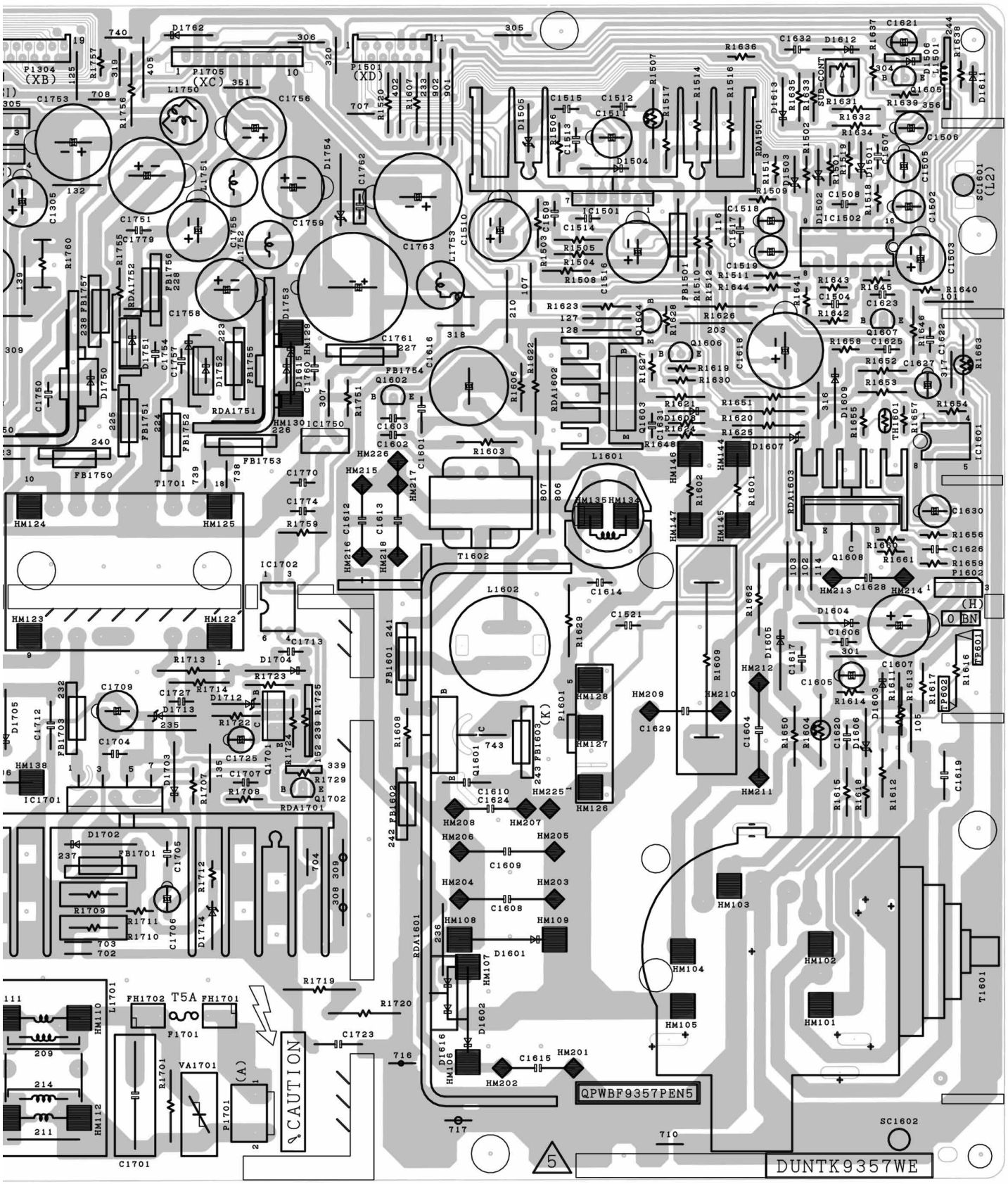


PWB-A: MAIN Unit (Chip Parts Side)

10	11	12	13	14	15	16	17	18	19



PWB-C: POWER Unit (Wiring Side)



10	11	12	13	14	15	16	17	18	19

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

★ MARK: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code

PICTURE TUBE

⚠	V801	VB80QCF240X1E	R	Picture Tube	DF
	L601	RCiLG0325CEZZ	R	NS Coil	AS
	L602	RCiLG0322CEZZ	R	WE Coil	AQ
	L603	RCiLG0322CEZZ	R	WE Coil	AQ
⚠	L1799	RCiLG0428CEZZ	R	Degaussing Coil	AZ
⚠	DY1601	RCiLH1897CEZZ	R	Deflection Yoke	BP
		PMAGF3036CEZZ	R	Purity Magnet	AT
		PMAGG3002CEZZ	R	Magnet	AC
		LHLDW0003PEKZ	R	ADG Coil Holder	AB
		QEARC3213CEZZ	R	Grounding Strap	AK
		PSPAG0003PEZZ	R	Wedge (3pcs used)	AD

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

PWB-A	DUNTK9356WEY2	–	MAIN Unit	—
PWB-B	DUNTK8776WEW9	–	CRT Unit	—
PWB-C	DUNTK9357WEX9	–	POWER Unit	—
PWB-D	DUNTK9358WEV0	–	DIG. COM Unit	—

Ref. No.	Part No.	★	Description	Code

PWB-A: DUNTK9356WEY2
MAIN UNIT

TUNER AND ASSEMBLY

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

⚠	TU201	VTUVTST6HZ64/	R	Tuner	BE
	UNT201	UBUP-0018CEZZ	R	RF Distributer	AX

INTEGRATED CIRCUITS

IC201	VHiBA7357S/-1	R	BA7357S	AR
IC203	RH-iX0249CEZZ	R	I.C.	AE
IC301	VHiAN5285K/-1	R	AN5285K	AP
IC302	VHiAN7397K/-1	R	AN7397K	AX
IC303	VHiTA8776N/-1	R	TA8776N	AQ
IC451	VHiTA1218AN-1	R	TA1218AN	AX
IC601	VHiKA7809Pi-1	J	KA7809PI	AE
IC602	VHiSi3121N/-1	R	SI3121N	AL
IC603	VHiKA7809Pi-1	J	KA7809PI	AE
IC604	VHiM51497L/-1	R	M51497L	AL
IC605	VHiTA7348P/-1	J	TA7348P	AK
IC606	VHiKA7805Pi-1	J	KA7805PI	AE
IC801	RH-iX2915CEZZ	R	TA1222BN	AY
IC802	VHiTA8814N/-1	R	TA8814N	AV
IC803	VHiTA8772AN-1	R	TA8772AN	AV
IC901	VHiTA1229N/-1	R	TA1229N	AX
IC1001	RH-iX3081CEN3	R	I.C.	BB
IC1002	VHiM24C08B/-1	R	M24C08-BN6	AM
IC1003	VHiPST994C/-1	R	PST994C	AD
IC1004	VHiKA7805Pi-1	J	KA7805PI	AE

TRANSISTORS

Q200	VS2SD601A//-1	R	2SD601A	AC
Q201	VS2SC2735//1E	R	2SC2735	AC
Q203	VS2SC2735//1E	R	2SC2735	AC
Q204	VS2SD601A//-1	R	2SD601A	AC
Q205	VS2SD601A//-1	R	2SD601A	AC
Q206	VS2SC2735//1E	R	2SC2735	AC
Q207	VS2SD601A//-1	R	2SD601A	AC
Q209	VS2SD601A//-1	R	2SD601A	AC
Q210	VS2SD601A//-1	R	2SD601A	AC
Q211	VS2SD601A//-1	R	2SD601A	AC
Q212	VS2SD601A//-1	R	2SD601A	AC
Q213	VS2SD601A//-1	R	2SD601A	AC
Q214	VS2SB709A//-1	R	2SB709A	AA
Q215	VS2SD601A//-1	R	2SD601A	AC
Q216	VS2SC2735//1E	R	2SC2735	AC
Q218	VS2SD601A//-1	R	2SD601A	AC
Q219	VS2SD601A//-1	R	2SD601A	AC
Q220	VS2SD601A//-1	R	2SD601A	AC
Q301	VS2SD601A//-1	R	2SD601A	AC
Q351	VS2SD601A//-1	R	2SD601A	AC
Q352	VS2SD601A//-1	R	2SD601A	AC
Q401	VS2SD601A//-1	R	2SD601A	AC
Q402	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q403	VS2SD601A//-1	R	2SD601A	AC
Q407	VS2SD601A//-1	R	2SD601A	AC
Q451	VS2SD601A//-1	R	2SD601A	AC
Q452	VS2SD601A//-1	R	2SD601A	AC
Q454	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q457	VS2SD601A//-1	R	2SD601A	AC
Q501	VS2SD601A//-1	R	2SD601A	AC
Q601	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q602	VS2SD601A//-1	R	2SD601A	AC
Q603	VS2SD601A//-1	R	2SD601A	AC
Q604	VS2SB709A//-1	R	2SB709A	AA
Q605	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q606	VS2SD601A//-1	R	2SD601A	AC
Q607	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q608	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q609	VS2SA1015G/1E	R	2SA1015 (G)	AC
Q610	VS2SA1015G/1E	R	2SA1015 (G)	AC
Q611	VS2SA1015G/1E	R	2SA1015 (G)	AC
Q612	VS2SA1015G/1E	R	2SA1015 (G)	AC

PWB-A: DUNTK9356WEY2
MAIN UNIT (Continued)

Ref. No.	Part No.	★	Description	Code
Q613	VS2SD601A//-1	R	2SD601A	AC
Q614	VS2SD601A//-1	R	2SD601A	AC
Q615	VS2SD601A//-1	R	2SD601A	AC
Q616	VS2SD601A//-1	R	2SD601A	AC
Q618	VS2SD601A//-1	R	2SD601A	AC
Q619	VS2SD601A//-1	R	2SD601A	AC
Q620	VS2SD601A//-1	R	2SD601A	AC
Q801	VS2SD601A//-1	R	2SD601A	AC
Q802	VS2SD601A//-1	R	2SD601A	AC
Q803	VS2SD601A//-1	R	2SD601A	AC
Q901	VS2SD601A//-1	R	2SD601A	AC
Q902	VS2SD601A//-1	R	2SD601A	AC
Q1001	VS2SD601A//-1	R	2SD601A	AC
Q1002	VS2SD601A//-1	R	2SD601A	AC
Q1004	VS2SD601A//-1	R	2SD601A	AC
Q1005	VS2SD601A//-1	R	2SD601A	AC
Q1006	VS2SD601A//-1	R	2SD601A	AC
Q1009	VS2SD601A//-1	R	2SD601A	AC
Q1010	VS2SB709A//-1	R	2SB709A	AA
Q1011	VS2SB709A//-1	R	2SB709A	AA
Q1012	VS2SD601A//-1	R	2SD601A	AC
Q1013	VS2SD601A//-1	R	2SD601A	AC
Q1014	VS2SD601A//-1	R	2SD601A	AC
Q1015	VS2SK583///-1	R	2SK583	AE
Q1018	VS2SK583///-1	R	2SK583	AE

DIODES

D203	VHD1SS152//-1	R	Diode	AB
D307	VHD1SS119//1E	R	1SS119	AA
D401	VHD1SS119//1E	R	1SS119	AA
D402	RH-EX0639GEZZ	R	Zener Diode	AA
D403	VHDDAN202K/-1	R	Diode	AB
D451	RH-EX0631GEZZ	R	Zener Diode	AA
D452	RH-EX0631GEZZ	R	Zener Diode	AA
D453	RH-EX0631GEZZ	R	Zener Diode	AA
D454	RH-EX0619GEZZ	R	Zener Diode	AA
D455	RH-EX0619GEZZ	R	Zener Diode	AA
D600	RH-EX0604GEZZ	R	Zener Diode	AB
D601	VHD1SS119//1E	R	1SS119	AA
D602	VHD1SS119//1E	R	1SS119	AA
D603	VHD1SS119//1E	R	1SS119	AA
D604	VHD1SS119//1E	R	1SS119	AA
D605	VHD1SS119//1E	R	1SS119	AA
D606	RH-EX0604GEZZ	R	Zener Diode	AB
D607	VHD1SS119//1E	R	1SS119	AA
D610	VHD1SS119//1E	R	1SS119	AA
D611	VHD1SS119//1E	R	1SS119	AA
D613	VHD1SS119//1E	R	1SS119	AA
D614	VHD1SS119//1E	R	1SS119	AA
D615	VHD1SS119//1E	R	1SS119	AA
D616	VHD1SS119//1E	R	1SS119	AA
D801	RH-EX0586CEZZ	R	Zener Diode	AB
D805	RH-DX0279CEZZ	R	Diode	AB
D808	VHD1SS119//1E	R	1SS119	AA
D809	VHDDAN202K/-1	R	Diode	AB
D811	RH-EX0615GEZZ	R	Zener Diode	AA
D812	RH-EX0615GEZZ	R	Zener Diode	AA
D813	RH-EX0615GEZZ	R	Zener Diode	AA
D1001	VHD1SS119//1E	R	1SS119	AA
D1002	VHD1SS119//1E	R	1SS119	AA
D1003	VHD1SS119//1E	R	1SS119	AA
D1005	RH-EX0619GEZZ	R	Zener Diode	AA
D1006	VHD1SS119//1E	R	1SS119	AA
D1008	RH-EX1222CEZZ	R	Zener Diode	AE
D1009	RH-EX1222CEZZ	R	Zener Diode	AE
D1010	RH-EX1222CEZZ	R	Zener Diode	AE
D1019	RH-EX1222CEZZ	R	Zener Diode	AE
D1020	VHD1SS119//1E	R	1SS119	AA
D1023	VHD1SS119//1E	R	1SS119	AA
D1024	RH-EX1222CEZZ	R	Zener Diode	AE
D1027	RH-EX1222CEZZ	R	Zener Diode	AE
D1030	RH-EX1222CEZZ	R	Zener Diode	AE
D1032	RH-EX1222CEZZ	R	Zener Diode	AE
D1034	RH-EX1222CEZZ	R	Zener Diode	AE
D1037	RH-EX1222CEZZ	R	Zener Diode	AE
D1040	RH-EX1222CEZZ	R	Zener Diode	AE
D1041	RH-EX1222CEZZ	R	Zener Diode	AE
D1043	RH-EX1222CEZZ	R	Zener Diode	AE
D1045	RH-EX1222CEZZ	R	Zener Diode	AE
D1047	RH-EX1222CEZZ	R	Zener Diode	AE
D1050	RH-EX1222CEZZ	R	Zener Diode	AE
D1052	RH-EX0619GEZZ	R	Zener Diode	AA
D1053	VHD1SS119//1E	R	1SS119	AA
D1054	VHD1SS119//1E	R	1SS119	AA
D1056	VHD1SS119//1E	R	1SS119	AA
D1057	VHD1SS119//1E	R	1SS119	AA
D1058	VHD1SS119//1E	R	1SS119	AA
D1070	VHD1SS119//1E	R	1SS119	AA

PACKAGED CIRCUITS

X801	RCRSB0067CEZZ	R	Crystal	AQ
X802	RCRSB0001PEZZ	J	Crystal	AL
X901	RCRSB0004PEZZ	J	Crystal	AH

FILTERS

CF201	RFiLA0042CEZZ	R	Ceramic Filter	AD
CF202	RFiLA0093CEZZ	R	Ceramic Filter	AC
CF203	RFiLC0081GEZZ	R	Ceramic Filter	AD
CF601	RFiLA0020CEZZ	R	Ceramic Filter	AD
CF801	RFiLA0034CEZZ	R	Ceramic Filter	AD
CF1001	RFiLA0084CEZZ	R	Ceramic Filter	AE
SF201	RFiLC0015PEZZ	J	SAW Filter	AR

COILS

DL402	RCiLZ0900CEZZ	R	Delay Line	AP
L200	VP-XF270K0000	R	Peaking 27µH	AB
L201	VP-DF680K0000	R	Peaking 68µH	AB
L202	VP-DF270K0000	R	Peaking 27µH	AB
L203	VP-XF1R2K0000	R	Peaking 1.2µH	AB
L206	VP-XF390K0000	R	Peaking 39µH	AB
L209	VP-XF120K0000	R	Peaking 12µH	AB
L210	VP-DF680K0000	R	Peaking 68µH	AB
L451	VP-DF100K0000	R	Peaking 10µH	AB
L901	VP-XF120K0000	R	Peaking 12µH	AB
L1001	VP-DF1R0K0000	R	Peaking 1µH	AB
T203	RCiLD0238CEZZ	R	Detection Coil	AE
T204	RCiLD0244CEZZ	R	Detection Coil	AF

CONTROLS

R224	RVR-M4620GEZZ	R	1k (B) V-Level Adj.	AB
R226	RVR-M4630GEZZ	R	47k (B) RF-AGC (M) Adj.	AB

CAPACITORS

C201	VCEAGA1EW226M	R	22	25V	Electrolytic	AA
C202	VCEAGA0JW107M	R	100	6.3V	Electrolytic	AB
C203	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C204	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C205	VCEA0A1CW477M	R	470	16V	Electrolytic	AC
C206	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C207	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C208	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C209	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C210	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C216	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C217	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
C218	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C219	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C220	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C221	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C222	VCKYCY1CB104K	R	0.1	16V	Ceramic	AB
C223	VCCCCY1HH150J	R	15p	50V	Ceramic	AA
C224	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C225	VCCCCY1HH101J	R	100p	50V	Ceramic	AA
C226	VCFYHA1HA684J	R	0.68	50V	Mylar	AD
C227	VCCCCY1HH120J	R	12p	50V	Ceramic	AA

PWB-A: DUNTK9356WEY2
MAIN UNIT (Continued)

Ref. No.	Part No.	★			Description	Code
C228	VCQYTA1HM104K	R	0.1	50V	Mylar	AC
C229	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C230	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C231	VCCCCY1HH180J	R	18p	50V	Ceramic	AA
C232	VCCCCY1HH180J	R	18p	50V	Ceramic	AA
C233	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C234	VCQYTA1HM104K	R	0.1	50V	Mylar	AC
C235	VCQYTA1HM103K	R	0.01	50V	Mylar	AB
C236	VCKYCY1CB104K	R	0.1	16V	Ceramic	AB
C237	VCEAGA1HW106M	R	10	50V	Electrolytic	AC
C238	VCQYTA1HM103J	R	0.01	50V	Mylar	AA
C239	VCCCCY1HH680J	R	68p	50V	Ceramic	AA
C240	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C241	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C243	VCCCCY1HH2R0C	R	2.0p	50V	Ceramic	AA
C245	VCEA0A1CW477M	R	470	16V	Electrolytic	AC
C248	VCKYCY1CB333K	R	0.033	16V	Ceramic	AA
C257	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C258	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C259	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C261	VCCCCY1HH271J	R	270p	50V	Ceramic	AA
C262	VCCCCY1HH680J	R	68p	50V	Ceramic	AA
C264	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C265	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C301	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C302	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
C303	VCEAGA1EW475M	R	4.7	25V	Electrolytic	AA
C305	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C306	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C307	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C308	VCEAGA1EW475M	R	4.7	25V	Electrolytic	AA
C309	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C310	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C311	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C312	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C313	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C315	VCEAGA1CW226M	R	22	16V	Electrolytic	AB
C316	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C317	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C318	VCEAGA1CW336M	R	33	16V	Electrolytic	AB
C319	VCQYTA1HM473J	R	0.047	50V	Mylar	AA
C320	VCQYTA1HM473J	R	0.047	50V	Mylar	AA
C321	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C324	VCKYCY1HB562K	R	5600p	50V	Ceramic	AA
C325	VCEAGA1HW335M	R	3.3	50V	Electrolytic	AB
C326	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C327	VCKYCY1CB393K	R	0.039	16V	Ceramic	AA
C328	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C330	VCKYCY1CB393K	R	0.039	16V	Ceramic	AA
C331	VCKYCY1CB393K	R	0.039	16V	Ceramic	AA
C332	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C333	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C334	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C335	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C336	VCEAGA1HW106M	R	10	50V	Electrolytic	AC
C337	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C338	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C339	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C340	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C341	VCEAGA1EW475M	R	4.7	25V	Electrolytic	AA
C342	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C343	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C346	VCEAGA1AW476M	R	47	10V	Electrolytic	AA
C347	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C351	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C352	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C356	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C357	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C358	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C359	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C360	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C361	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C363	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C365	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C367	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C369	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C370	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C372	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C373	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C375	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C401	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C402	VCFYFA1HA124J	R	0.12	50V	Mylar	AC
C403	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C404	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C405	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C410	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C411	VCEAGA1CW227M	R	220	16V	Electrolytic	AC
C414	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C415	VCCCCY1HH181J	R	180p	50V	Ceramic	AA
C417	VCKYD41CY103N	R	0.01	16V	Ceramic	AA
C451	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C454	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C455	VCE9GA1CW106M	R	10	16V	Elect. (N.P)	AB
C456	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C457	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C458	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C459	VCEAGA1CW108M	R	1000	16V	Electrolytic	AD
C460	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C473	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C477	VCEA0A1CW477M	R	470	16V	Electrolytic	AC
C480	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C482	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C601	VCEAGA1EW227M	R	220	25V	Electrolytic	AC
C602	VCEAGA1CW227M	R	220	16V	Electrolytic	AC
C603	VCEAGA1EW227M	R	220	25V	Electrolytic	AC
C604	VCEAGA1CW227M	R	220	16V	Electrolytic	AC
C605	VCEAGA1EW227M	R	220	25V	Electrolytic	AC
C606	VCEAGA1CW227M	R	220	16V	Electrolytic	AC
C607	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C608	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C609	VCKYCY1EB123K	R	0.012	25V	Ceramic	AA
C610	VCEAGA1HW224M	R	0.22	50V	Electrolytic	AA
C611	VCKYCY1HB182K	R	1800p	50V	Ceramic	AA
C612	VCKYCY1HB821K	R	820p	50V	Ceramic	AA
C613	VCEAGA1HW224M	R	0.22	50V	Electrolytic	AA
C614	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C615	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C616	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C618	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C619	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C620	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C621	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C622	VCCCCY1HH221J	R	220p	50V	Ceramic	AA
C623	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C624	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C625	VCFYFA1HA224J	R	0.22	50V	Mylar	AB
C626	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C627	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C628	VCFYFA1HA334J	R	0.33	50V	Mylar	AB
C629	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C637	VCKYAT1EX103N	R	0.01	25V	Ceramic	AA
C638	VCQYTA1HM104K	R	0.1	50V	Mylar	AC
C639	VCQYTA1HM104K	R	0.1	50V	Mylar	AC
C640	VCQYTA1HM104K	R	0.1	50V	Mylar	AC
C641	VCQYTA1HM104K	R	0.1	50V	Mylar	AC
C801	VCCCCY1HH120J	R	12p	50V	Ceramic	AA
C802	VCQYTA1HM222J	R	2200p	50V	Mylar	AA
C803	VCEAGA1HW474M	R	0.47	50V	Electrolytic	AA
C804	VCCCCY1HH120J	R	12p	50V	Ceramic	AA
C805	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C806	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C807	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C808	VCEA0A1CW477M	R	470	16V	Electrolytic	AC
C809	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C810	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C814	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C815	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C816	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA

PWB-A: DUNTK9356WEY2

MAIN UNIT (Continued)

Ref. No.	Part No.	★			Description	Code
C817	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C818	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C819	VCCCCY1HH470J	R	47p	50V	Ceramic	AA
C820	VCCCCY1HH470J	R	47p	50V	Ceramic	AA
C821	VCCCCY1HH470J	R	47p	50V	Ceramic	AA
C822	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C823	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C824	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C825	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C826	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C827	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C828	VCFYFA1HA124J	R	0.12	50V	Mylar	AC
C829	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C830	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C831	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C832	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C833	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C834	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C835	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C836	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C837	VCEAGA1HW474M	R	0.47	50V	Electrolytic	AA
C838	VCEAGA1HW474M	R	0.47	50V	Electrolytic	AA
C839	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C840	VCEA0A1CW477M	R	470	16V	Electrolytic	AC
C841	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C842	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C843	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C844	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C845	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C846	VCEAGA1HW474M	R	0.47	50V	Electrolytic	AA
C847	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C848	VCEAGA1AW476M	R	47	10V	Electrolytic	AA
C849	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C901	VCKYPA1HB101K	R	100p	50V	Ceramic	AA
C902	VCCCCY1HH101J	R	100p	50V	Ceramic	AA
C903	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C904	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C905	VCCCCY1HH150J	R	15p	50V	Ceramic	AA
C906	VCFYFA1HA684J	R	0.68	50V	Mylar	AD
C907	VCFYFA1HA684J	R	0.68	50V	Mylar	AD
C908	VCCCCY1HH101J	R	100p	50V	Ceramic	AA
C909	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C910	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C911	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C912	VCQYTA1HM683J	R	0.068	50V	Mylar	AB
C913	VCQYTA1HM223J	R	0.022	50V	Mylar	AA
C914	VCQYTA1HM563J	R	0.056	50V	Mylar	AB
C915	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C916	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C917	VCCCCY1HH101J	R	100p	50V	Ceramic	AA
C918	VCCCCY1HH820J	R	82p	50V	Ceramic	AA
C950	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C951	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C952	VCFYFA1HA684J	R	0.68	50V	Mylar	AD
C953	VCFYFA1HA684J	R	0.68	50V	Mylar	AD
C954	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C955	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C956	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C957	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1001	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1002	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1003	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1004	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C1005	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C1006	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C1007	VCCCCY1HH560J	R	56p	50V	Ceramic	AA
C1008	VCEAGA1AW107M	R	100	10V	Electrolytic	AB
C1009	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C1012	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C1015	VCEAGA1AW476M	R	47	10V	Electrolytic	AA
C1016	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C1019	VCEAGA1CW226M	R	22	16V	Electrolytic	AB
C1020	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C1021	VCCCCY1HH560J	R	56p	50V	Ceramic	AA
C1022	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C1024	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C1031	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C1033	VCEAEA1CW476M	R	47	16V	Electrolytic	AB
C1034	VCKYPA1HB221K	R	220p	50V	Ceramic	AA
C1035	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
C1040	VCEAGA1CW226M	R	22	16V	Electrolytic	AB

RESISTORS

Ref. No.	Part No.	★			Description	Code
R198	VRS-CY1JF395J	R	3.9M	1/16W	Metal Oxide	AA
R201	VRS-CY1JF273J	R	27k	1/16W	Metal Oxide	AA
R202	VRS-CY1JF680J	R	68	1/16W	Metal Oxide	AA
R203	VRS-CY1JF680J	R	68	1/16W	Metal Oxide	AA
R204	VRS-CY1JF151J	R	150	1/16W	Metal Oxide	AA
R206	VRS-CY1JF680J	R	68	1/16W	Metal Oxide	AA
R211	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R212	VRS-CY1JF122J	R	1.2k	1/16W	Metal Oxide	AA
R213	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R214	VRS-CY1JF392J	R	3.9k	1/16W	Metal Oxide	AA
R215	VRS-CY1JF682J	R	6.8k	1/16W	Metal Oxide	AA
R216	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R217	VRD-RA2BE222J	R	2.2k	1/8W	Carbon	AA
R218	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
R219	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R221	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R223	VRD-RA2BE273J	R	27k	1/8W	Carbon	AA
R225	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R227	VRS-CY1JF154J	R	150k	1/16W	Metal Oxide	AA
R228	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R229	VRD-RA2BE184J	R	180k	1/8W	Carbon	AA
R230	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R231	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R232	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R233	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R234	VRS-CY1JF151J	R	150	1/16W	Metal Oxide	AA
R235	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R236	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R237	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R238	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R239	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R240	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R241	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R242	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R243	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R244	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R245	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R246	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R247	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R248	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R249	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R250	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R255	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R256	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R257	VRS-CY1JF822J	R	8.2k	1/16W	Metal Oxide	AA
R258	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R259	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R260	VRS-CY1JF272J	R	2.7k	1/16W	Metal Oxide	AA
R261	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R262	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R263	VRS-CY1JF391J	R	390	1/16W	Metal Oxide	AA
R264	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R265	VRS-CY1JF331J	R	330	1/16W	Metal Oxide	AA
R266	VRS-CY1JF332J	R	3.3k	1/16W	Metal Oxide	AA
R267	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R268	VRS-CY1JF122J	R	1.2k	1/16W	Metal Oxide	AA
R269	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
⚠ R270	RR-XZ0026CEZZ	R	10	1/4W	Fuse Resistor	AB
R271	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R272	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R273	VRS-CY1JF391J	R	390	1/16W	Metal Oxide	AA
R274	VRD-RA2EE102J	R	1.0k	1/4W	Carbon	AA
R275	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R276	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA

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MAIN UNIT (Continued)

Ref. No.	Part No.	★			Description	Code
R277	VRS-CY1JF681J	R	680	1/16W	Metal Oxide	AA
R278	VRD-RA2EE120J	R	12	1/4W	Carbon	AA
R279	VRD-RA2EE120J	R	12	1/4W	Carbon	AA
R281	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R282	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R283	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R284	VRS-VV3DB123J	R	12k	2W	Metal Oxide	AA
R285	VRS-CY1JF683J	R	68k	1/16W	Metal Oxide	AA
R286	VRD-RA2BE683J	R	68k	1/8W	Carbon	AA
R288	VRS-CY1JF272J	R	2.7k	1/16W	Metal Oxide	AA
R289	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R290	VRS-CY1JF224J	R	220k	1/16W	Metal Oxide	AA
R296	VRS-CY1JF150J	R	15	1/16W	Metal Oxide	AA
R297	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
R301	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R303	VRD-RA2EE225J	R	2.2M	1/4W	Carbon	AA
R305	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R306	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
R307	VRS-CY1JF333J	R	33k	1/16W	Metal Oxide	AA
R308	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R309	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R310	VRD-RA2BE333J	R	33k	1/8W	Carbon	AA
R311	VRS-CY1JF182J	R	1.8k	1/16W	Metal Oxide	AA
R312	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R317	VRS-CY1JF154J	R	150k	1/16W	Metal Oxide	AA
R318	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R319	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R320	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R321	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R322	VRD-RA2BE394J	R	390k	1/8W	Carbon	AA
R351	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R352	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R356	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R357	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R358	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R359	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R360	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R361	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R362	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R363	VRS-CY1JF564J	R	560k	1/16W	Metal Oxide	AA
R364	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R365	VRD-RA2BE564J	R	560k	1/8W	Carbon	AA
R366	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R367	VRS-CY1JF564J	R	560k	1/16W	Metal Oxide	AA
R368	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R369	VRS-CY1JF564J	R	560k	1/16W	Metal Oxide	AA
R370	VRS-CY1JF104J	R	100k	1/16W	Metal Oxide	AA
R371	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R372	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R373	VRS-CY1JF104J	R	100k	1/16W	Metal Oxide	AA
R374	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R375	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R376	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R377	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R378	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R379	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R401	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R402	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R403	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R404	VRS-CY1JF821J	R	820	1/16W	Metal Oxide	AA
R405	VRS-CY1JF821J	R	820	1/16W	Metal Oxide	AA
R406	VRD-RA2EE471J	R	470	1/4W	Carbon	AA
R407	VRS-CY1JF121J	R	120	1/16W	Metal Oxide	AA
R408	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R409	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R418	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R420	VRS-CY1JF331J	R	330	1/16W	Metal Oxide	AA
R421	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R422	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R423	VRS-CY1JF392J	R	3.9k	1/16W	Metal Oxide	AA
R424	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R425	VRD-RA2BE563J	R	56k	1/8W	Carbon	AA
R426	VRS-CY1JF471J	R	470	1/16W	Metal Oxide	AA
R427	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R429	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
R451	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R452	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R453	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R454	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R455	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R456	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R457	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R458	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R459	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R460	VRS-CY1JF123J	R	12k	1/16W	Metal Oxide	AA
R461	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R462	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R464	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R465	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R467	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R468	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R469	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R470	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R473	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R474	VRD-RA2EE750J	R	75	1/4W	Carbon	AA
R475	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R476	VRD-RM2HD221J	R	220	1/2W	Carbon	AA
R477	VRD-RA2EE750J	R	75	1/4W	Carbon	AA
R478	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R479	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R480	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R481	VRD-RA2EE750J	R	75	1/4W	Carbon	AA
R482	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R483	VRD-RA2EE750J	R	75	1/4W	Carbon	AA
R484	VRD-RA2BE100J	R	10	1/8W	Carbon	AA
R485	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R501	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R502	VRS-CY1JF333J	R	33k	1/16W	Metal Oxide	AA
R503	VRS-CY1JF333J	R	33k	1/16W	Metal Oxide	AA
R504	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R601	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R602	VRN-VV3LB4R7J	R	4.7	3.0W	Metal Film	AC
R605	VRD-RM2HD470J	R	47	1/2W	Carbon	AA
R606	VRD-RM2HD470J	R	47	1/2W	Carbon	AA
R609	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R610	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R612	VRD-RM2HD220J	R	22	1/2W	Carbon	AA
R613	VRD-RM2HD220J	R	22	1/2W	Carbon	AA
R614	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R615	VRN-VV3LB4R7J	R	4.7	3.0W	Metal Film	AC
R616	VRD-RM2HD560J	R	56	1/2W	Carbon	AA
R617	VRD-RM2HD560J	R	56	1/2W	Carbon	AA
R618	VRS-CY1JF684J	R	680k	1/16W	Metal Oxide	AA
R619	VRS-CY1JF682J	R	6.8k	1/16W	Metal Oxide	AA
R620	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R621	VRS-CY1JF271J	R	270	1/16W	Metal Oxide	AA
R622	VRS-CY1JF471J	R	470	1/16W	Metal Oxide	AA
R623	VRS-CY1JF184J	R	180k	1/16W	Metal Oxide	AA
R624	VRD-RA2EE471J	R	470	1/4W	Carbon	AA
R625	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R626	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R627	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R628	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R629	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R630	VRS-CY1JF394J	R	390k	1/16W	Metal Oxide	AA
R631	VRS-CY1JF182J	R	1.8k	1/16W	Metal Oxide	AA
R632	VRS-CY1JF471J	R	470	1/16W	Metal Oxide	AA
R633	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R634	VRD-RA2BE100J	R	10	1/8W	Carbon	AA
R635	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R636	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R637	VRD-RA2BE222J	R	2.2k	1/8W	Carbon	AA
R638	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R639	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R640	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R641	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R642	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R643	VRD-RM2HD560J	R	56	1/2W	Carbon	AA

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MAIN UNIT (Continued)

Ref. No.	Part No.	★			Description	Code
R644	VRD-RM2HD560J	R	56	1/2W	Carbon	AA
R647	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R648	VRS-CY1JF682J	R	6.8k	1/16W	Metal Oxide	AA
R651	VRS-CY1JF105J	R	1.0M	1/16W	Metal Oxide	AA
R653	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R654	VRD-RM2HD271J	R	270	1/2W	Carbon	AA
R655	VRD-RM2HD121J	R	120	1/2W	Carbon	AA
R656	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R657	VRS-CY1JF152J	R	1.5k	1/16W	Metal Oxide	AA
R658	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R659	VRS-CY1JF152J	R	1.5k	1/16W	Metal Oxide	AA
R660	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R661	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R662	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R663	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R664	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R665	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R666	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R667	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R668	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R669	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R670	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R671	VRS-CY1JF182J	R	1.8k	1/16W	Metal Oxide	AA
R672	VRS-CY1JF682J	R	6.8k	1/16W	Metal Oxide	AA
R673	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R674	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R675	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R676	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R678	VRS-CY1JF182J	R	1.8k	1/16W	Metal Oxide	AA
R679	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R682	VRS-CY1JF152J	R	1.5k	1/16W	Metal Oxide	AA
R683	VRS-CY1JF271J	R	270	1/16W	Metal Oxide	AA
R684	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R686	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R690	VRD-RM2HD5R6J	R	5.6	1/2W	Carbon	AA
R801	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R802	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R803	VRS-CY1JF273J	R	27k	1/16W	Metal Oxide	AA
R804	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R805	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R806	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R807	VRS-CY1JF391J	R	390	1/16W	Metal Oxide	AA
R808	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R809	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R814	VRS-CY1JF333J	R	33k	1/16W	Metal Oxide	AA
R815	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R816	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R817	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R818	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R819	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R820	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R822	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R823	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R824	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R825	VRS-CY1JF471J	R	470	1/16W	Metal Oxide	AA
R826	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R827	VRS-CY1JF183J	R	18k	1/16W	Metal Oxide	AA
R828	VRS-CY1JF183J	R	18k	1/16W	Metal Oxide	AA
R829	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R830	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R831	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R832	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R833	VRS-CY1JF822J	R	8.2k	1/16W	Metal Oxide	AA
R834	VRS-CY1JF822J	R	8.2k	1/16W	Metal Oxide	AA
R835	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R836	VRS-CY1JF104J	R	100k	1/16W	Metal Oxide	AA
R837	VRS-CY1JF104J	R	100k	1/16W	Metal Oxide	AA
R838	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R839	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R840	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R841	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R842	VRD-RM2HD680J	R	68	1/2W	Carbon	AA
R843	VRD-RM2HD680J	R	68	1/2W	Carbon	AA
R844	VRD-RA2BE391J	R	390	1/8W	Carbon	AA
R846	VRS-CY1JF683J	R	68k	1/16W	Metal Oxide	AA
R847	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R901	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R902	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R903	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R904	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R905	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R906	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R907	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R908	VRS-CY1JF475J	R	4.7M	1/16W	Metal Oxide	AA
R909	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R910	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R911	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R912	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R913	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R1001	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R1002	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R1003	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1004	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1005	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R1008	VRD-RA2BE563J	R	56k	1/8W	Carbon	AA
R1011	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
R1012	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1015	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
R1016	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1018	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1020	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1022	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1024	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1025	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
R1026	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R1028	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1030	VRD-RA2BE473J	R	47k	1/8W	Carbon	AA
R1031	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1032	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1033	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R1034	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1035	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1042	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R1043	VRS-CY1JF123J	R	12k	1/16W	Metal Oxide	AA
R1044	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1046	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1047	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1048	VRS-CY1JF333J	R	33k	1/16W	Metal Oxide	AA
R1049	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1055	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R1057	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R1058	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1059	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R1060	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R1061	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1062	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1063	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1064	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1065	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1066	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1067	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1068	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1070	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1071	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1072	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1073	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1074	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1075	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1076	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R1077	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1078	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R1079	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1080	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R1081	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1082	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1083	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1084	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1085	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA

PWB-A: DUNTK9356WEY2

MAIN UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
R1086	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1087	VRD-RA2BE333J	R	33k	1/8W	Carbon	AA
R1088	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1089	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1090	VRS-CY1JF332J	R	3.3k	1/16W	Metal Oxide	AA
R1091	VRS-CY1JF332J	R	3.3k	1/16W	Metal Oxide	AA
R1093	VRS-CY1JF273J	R	27k	1/16W	Metal Oxide	AA
R1094	VRS-CY1JF683J	R	68k	1/16W	Metal Oxide	AA
R1095	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R1096	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R1097	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R1098	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R1099	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R1100	VRS-CY1JF392J	R	3.9k	1/16W	Metal Oxide	AA
R1101	VRS-CY1JF272J	R	2.7k	1/16W	Metal Oxide	AA
R1102	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R1103	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1104	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1105	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1106	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1107	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1108	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R1109	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R1110	VRD-RA2BE332J	R	3.3k	1/8W	Carbon	AA
R1111	VRD-RA2BE332J	R	3.3k	1/8W	Carbon	AA
R1112	VRD-RA2BE332J	R	3.3k	1/8W	Carbon	AA
R1113	VRS-CY1JF333J	R	33k	1/16W	Metal Oxide	AA
R1114	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R1115	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1116	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1117	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1119	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1120	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1121	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1122	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1123	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1124	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R1125	VRS-CY1JF000J	R	0	1/16W	Metal Oxide	AA
R1127	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1129	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1130	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

J451	QTANJ0956CEZZ	R	Terminal	AT
P201	QPLGN0261CEZZ	R	Plug, 2-pin	AB
P451	QPLGN0261CEZZ	R	Plug, 2-pin (VR)	AB
P601	QPLGN0261CEZZ	R	Plug, 2-pin (GS)	AB
P602	QPLGN0461CEZZ	R	Plug, 4-pin (MC)	AB
P801	QPLGN0561CEZZ	R	Plug, 5-pin (KY)	AB
P802	QPLGN0461CEZZ	R	Plug, 4-pin (P)	AB
P1003	QPLGN0661CEZZ	R	Plug, 6-pin (BC)	AD
SC401	QSOCN0785CEZZ	R	Socket, 7-pin (YA)	AC
SC402	QSOCN0785CEZZ	R	Socket, 7-pin (YB)	AC
SC451	QSOCD0427CEZZ	R	Socket	AL
SC501	QSOCZ1138CEZZ	R	Socket, 11-pin (XD)	AE
SC601	QSOCZ1020CEZZ	R	Socket, 10-pin (XC)	AF
SC602	QSOCZ1938CEZZ	R	Socket, 19-pin (XB)	AF
SC1001	QSOCZ1138CEZZ	R	Socket, 11-pin (XA)	AE
SLD201	PSLDM0235PEFW	J	Shield	AD
SLD202	PSLDM0236PEFW	J	Shield	AC
SLD1001	PSLDM0211PEFW	J	Shield	AG
TP801	QLUGP0102PEZZ	J	Lug	AA
TP802	QLUGP0102PEZZ	J	Lug	AA
TP806	QLUGP0102PEZZ	J	Lug	AA
RDA601	PRDAR0255PEFW	J	Heat Sink, for IC601~603	AE

PWB-B: DUNTK8776WEW9

CRT UNIT

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q850	VS2SC4544LB1E	R	2SC4544	AD
Q851	VS2SC4544LB1E	R	2SC4544	AD
Q852	VS2SC4544LB1E	R	2SC4544	AD
Q853	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q854	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q855	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q856	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q857	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q858	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q1501	VS2SA1837//-1	R	2SA1837	AF
Q1502	VS2SC4793//-1	R	2SC4793	AF
Q1503	VS2SC1815YW-1	R	2SC1815 (YW)	AC
Q1504	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q1506	VS2SC1815YW-1	R	2SC1815 (YW)	AC
Q1507	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q1508	VS2SC1815YW-1	R	2SC1815 (YW)	AC
Q1510	VS2SC1815YW-1	R	2SC1815 (YW)	AC

DIODES

Ref. No.	Part No.	★	Description	Code
D850	VHD1SS119//1E	R	1SS119	AA
D851	VHD1SS119//1E	R	1SS119	AA
D852	VHD1SS119//1E	R	1SS119	AA
D853	VHD1SS119//1E	R	1SS119	AA
D854	VHD1SS119//1E	R	1SS119	AA
D855	VHD1SS119//1E	R	1SS119	AA
D856	VHD1SS119//1E	R	1SS119	AA
D857	RH-EX0619GEZZ	R	Zener Diode	AA
D858	VHD1SS119//1E	R	1SS119	AA
D859	VHD1SS119//1E	R	1SS119	AA
D860	VHD1SS119//1E	R	1SS119	AA
D861	VHD1SS119//-1	R	1SS119	AB
D1501	VHD1SS119//1E	R	1SS119	AA
D1502	VHD1SS119//1E	R	1SS119	AA
D1503	RH-DX0086TAZZ	R	Diode	AC
D1504	RH-DX0086TAZZ	R	Diode	AC
D1514	VHD1SS119//1E	R	1SS119	AA
D1515	VHD1SS119//1E	R	1SS119	AA
D1516	VHD1SS119//1E	R	1SS119	AA
D1522	VHD1SS119//1E	R	1SS119	AA

COILS

Ref. No.	Part No.	★	Description	Code
L854	VP-2K470K000K	R	Peaking 47µH	AB
L855	VP-2K470K000K	R	Peaking 47µH	AB
L856	VP-2K470K000K	R	Peaking 47µH	AB

CONTROL

Ref. No.	Part No.	★	Description	Code
R890	RVR-M4263CEZZ	R	330(B) Sub-Bright Adj.	AD

CAPACITORS

Ref. No.	Part No.	★				Code
C850	VCEA0A2EW106M	R	10	250V	Electrolytic	AD
C851	RC-KZ0153CEZZ	R	0.001	3kV	Ceramic	AB
C853	VCKYD41HB561K	R	560p	50V	Ceramic	AA
C854	VCKYPA1HB331K	R	330p	50V	Ceramic	AA
C855	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C856	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C857	VCKYD41HB471K	R	470p	50V	Ceramic	AA
C858	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C859	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C860	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C861	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C863	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C864	VCEAGA1CW226M	R	22	16V	Electrolytic	AB
C1501	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1502	VCKYPA2HB472K	R	4700p	500V	Ceramic	AB
C1503	VCKYPA2HB472K	R	4700p	500V	Ceramic	AB
C1504	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1505	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1506	VCEAGA2CW106M	R	10	160V	Electrolytic	AC
C1507	VCEAGA1CW107M	R	100	16V	Electrolytic	AB

PWB-B: DUNTK8776WEW9
CRT UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
C1508	VCCSPA2HL560K	R	56p	500V	Ceramic	AA
C1509	VCEAGA2AW226M	R	22	100V	Electrolytic	AC
C1521	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1522	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1523	VCCSPA1HL221J	R	220p	50V	Ceramic	AA
C1524	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1526	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1528	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C1529	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA

RESISTORS

R850	VRC-MA2HG102K	R	1.0k	1/2W	Solid	AA
R851	VRC-MA2HG102K	R	1.0k	1/2W	Solid	AA
R852	VRC-MA2HG102K	R	1.0k	1/2W	Solid	AA
R853	VRS-VV3DB183J	R	18k	2W	Metal Oxide	AA
R854	VRS-VV3DB183J	R	18k	2W	Metal Oxide	AA
R855	VRS-VV3DB183J	R	18k	2W	Metal Oxide	AA
R856	VRS-VV3DB153J	R	15k	2W	Metal Oxide	AA
R857	VRS-VV3DB153J	R	15k	2W	Metal Oxide	AA
R858	VRS-VV3DB153J	R	15k	2W	Metal Oxide	AA
R859	VRC-MA2HG224K	R	220k	1/2W	Solid	AA
R860	VRD-RA2EE151J	R	150	1/4W	Carbon	AA
R861	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R862	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R863	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R864	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R865	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R866	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R867	VRD-RA2BE560J	R	56	1/8W	Carbon	AA
R868	VRD-RA2BE151J	R	150	1/8W	Carbon	AA
R869	VRD-RA2BE560J	R	56	1/8W	Carbon	AA
R870	VRD-RA2BE151J	R	150	1/8W	Carbon	AA
R871	VRD-RA2BE560J	R	56	1/8W	Carbon	AA
R872	VRD-RA2BE151J	R	150	1/8W	Carbon	AA
R873	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R874	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R875	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R876	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R877	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R878	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R879	VRD-RA2BE680J	R	68	1/8W	Carbon	AA
R880	VRD-RA2BE680J	R	68	1/8W	Carbon	AA
R881	VRD-RA2BE680J	R	68	1/8W	Carbon	AA
R882	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R883	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R884	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R887	VRD-RM2HD471J	R	470	1/2W	Carbon	AA
R888	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R889	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R891	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R892	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R893	VRD-RA2BE100J	R	10	1/8W	Carbon	AA
R894	VRD-RA2BE682J	R	6.8k	1/8W	Carbon	AA
R1502	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R1503	VRD-RA2EE560J	R	56	1/4W	Carbon	AA
R1504	VRD-RA2EE2R7J	R	2.7	1/4W	Carbon	AA
R1505	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1506	VRD-RA2BE100J	R	10	1/8W	Carbon	AA
R1507	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R1508	VRD-RA2BE683J	R	68k	1/8W	Carbon	AA
R1509	VRD-RA2BE123J	R	12k	1/8W	Carbon	AA
R1510	VRD-RM2HD121J	R	120	1/2W	Carbon	AA
R1511	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R1512	VRD-RA2BE683J	R	68k	1/8W	Carbon	AA
R1513	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R1514	VRD-RA2EE560J	R	56	1/4W	Carbon	AA
R1515	VRD-RA2EE2R7J	R	2.7	1/4W	Carbon	AA
R1516	VRS-VV3DB221J	R	220	2W	Metal Oxide	AA
R1531	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1532	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1533	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R1534	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R1536	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
R1537	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R1538	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R1539	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R1540	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
R1542	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R1543	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R1544	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1545	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1546	VRD-RA2BE391J	R	390	1/8W	Carbon	AA
R1547	VRD-RA2BE151J	R	150	1/8W	Carbon	AA
R1549	VRD-RA2BE393J	R	39k	1/8W	Carbon	AA
R1550	VRD-RM2HD471J	R	470	1/2W	Carbon	AA

MISCELLANEOUS PARTS

FB1501	RBLN-0020CEZZ	R	Ferrite Bead		AB
P850	QPLGN0361CEZZ	R	Plug, 3-pin (H)		AB
P851	QPLGN0561CEZZ	R	Plug, 5-pin (KY)		AB
P1501	QPLGN0261CEZZ	R	Plug, 2-pin (PU)		AB
⚠ SC850	QSOCV0919CEZZ	R	CRT Socket		AH
SC851	QTiPM0083CEZZ	R	Tip (L1)		AB
SC852	QTiPM0083CEZZ	R	Tip (K857)		AB
SC853	QTiPM0083CEZZ	R	Tip (L2)		AB
SC1501	QPLGN0461CEZZ	R	Plug, 4-pin (P)		AB
RDA850	PRDAR0083PEFW	J	Heat Sink, for Q850		AD
RDA851	PRDAR0083PEFW	J	Heat Sink, for Q851		AD
RDA852	PRDAR0083PEFW	J	Heat Sink, for Q852		AD
RDA1501	PRDAR0083PEFW	J	Heat Sink, for Q1501		AD
RDA1502	PRDAR0083PEFW	J	Heat Sink, for Q1502		AD

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POWER UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC1301	VHiTA8256H/-1	R	TA8256H	AU
IC1303	VHiAN7108//-1	R	AN7108	AL
IC1304	VHiUPC358C/-1	R	UPC358C	AD
IC1305	VHiUPC358C/-1	R	UPC358C	AD
IC1501	VHiTA8427K/-1	R	TA8427k	AL
IC1502	VHiTA8859CP-1	R	TA8859CP	AT
IC1701	VHiSTRM6821-1	R	STR-M6821A	AZ
⚠ IC1702	RH-FX0024CEZZ	R	PC113L	AG
IC1703	VHiTOP209//-1	R	TOP209P	AP
IC1750	VHiSE120N//-1	R	SE120N	AG
IC1751	VHiSi3121N/-1	R	SI3121N	AL

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q1211	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q1212	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q1213	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q1215	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q1302	VSKRC102M//-1	R	KRC102M	AA
Q1303	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q1304	VSKRC102M//-1	R	KRC102M	AA
⚠ Q1601	VS2SD1887//1E	R	2SD1887	AN
Q1602	VS2SC2482//-1	R	2SC2482	AD
Q1603	VS2SD2045//-1	R	2SD2045	AL
Q1604	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q1605	VS2SA1015Y/1E	R	2SA1015 (Y)	AC
Q1606	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q1607	VS2SC1815GW-1	R	2SC1815 (GW)	AB
Q1702	VS2SC1815YW-1	R	2SC1815 (YW)	AC
Q1751	VS2SC1815GW-1	R	2SC1815 (GW)	AB

DIODES

Ref. No.	Part No.	★	Description	Code
D1201	RH-PX0003PEZZ	J	LED, Power ON/OFF	AF
D1202	RH-PX0274CEZZ	R	LED, ON TIMER	AC
D1203	RH-PX0274CEZZ	R	LED, SAVE	AC
D1204	RH-EX0613GEZZ	R	Zener Diode	AA
D1205	RH-EX0631GEZZ	R	Zener Diode	AA
D1206	RH-EX0623GEZZ	R	Zener Diode	AA
D1259	VHD1SS119//1E	R	1SS119	AA
D1302	VHD1SS119//1E	R	1SS119	AA
D1303	VHD1SS119//1E	R	1SS119	AA
D1304	VHD1SS119//1E	R	1SS119	AA
D1305	VHD1SS119//1E	R	1SS119	AA
D1306	VHD1SS119//1E	R	1SS119	AA
D1307	VHD1SS119//1E	R	1SS119	AA
D1501	RH-EX0619GEZZ	R	Zener Diode	AA
D1502	RH-EX0619GEZZ	R	Zener Diode	AA
D1503	RH-EX0619GEZZ	R	Zener Diode	AA
D1504	RH-DX0279CEZZ	R	Diode	AB
D1505	RH-EX0619GEZZ	R	Zener Diode	AA
D1506	VHD1SS119//1E	R	Diode	AA
D1603	RH-DX0130CEZZ	R	Diode	AE
D1604	RH-DX0302CEZZ	R	Diode	AC
D1605	RH-DX0127CEZZ	R	Diode	AC
D1606	RH-EX0631GEZZ	R	Zener Diode	AA
D1607	RH-EX0797CEZZ	R	Zener Diode	AB
D1608	VHD1SS119//1E	R	Diode	AA
D1611	RH-DX0446CEZZ	R	Diode	AB
D1612	RH-DX0446CEZZ	R	Diode	AB
D1613	RH-DX0279CEZZ	R	Diode	AB
D1615	RH-DX0452CEZZ	R	Diode	AH
D1616	RH-DX0449CEZZ	R	Diode	AK
D1701	RH-DX0336CEZZ	R	Diode	AH
D1703	RH-DX0130CEZZ	R	Diode	AE
D1704	RH-DX0130CEZZ	R	Diode	AE
D1705	RH-DX0321CEZZ	R	Diode	AC
D1706	RH-DX0279CEZZ	R	Diode	AB
D1707	RH-DX0279CEZZ	R	Diode	AB
D1708	RH-DX0279CEZZ	R	Diode	AB
D1709	RH-DX0279CEZZ	R	Diode	AB
D1710	RH-DX0130CEZZ	R	Diode	AE
D1711	RH-DX0321CEZZ	R	Diode	AC
D1750	RH-DX0355CEZZ	R	Diode	AF
D1751	RH-DX0486CEZZ	R	Diode	AH
D1752	RH-DX0398CEZZ	R	Diode	AG
D1754	RH-EX0152CEZZ	R	Zener Diode	AE
D1756	RH-DX0130CEZZ	R	Diode	AE
D1757	VHD1SS119//1E	R	Diode	AA
D1762	VHD1SS119//1E	R	Diode	AA
VA1701	RH-VX0048CEZZ	R	Varistor	AE

PACKAGED CIRCUIT

Ref. No.	Part No.	★	Description	Code
PR1701	RMPTP0085CEZZ	R	Packaged Circuit	AL

COILS

Ref. No.	Part No.	★	Description	Code
L1201	VP-DF3R3K0000	R	Peaking 3.3µH	AB
L1202	VP-DF3R3K0000	R	Peaking 3.3µH	AB
L1300	VP-DF100K0000	R	Peaking 10µH	AB
L1501	VP-CF331K0000	R	Peaking 330µH	AB
L1601	RCiLZ0822CEZZ	R	Coil	AL
L1602	RCiLZ0720CEZZ	R	Coil	AL
⚠ L1701	RCiLF0138CEZZ	R	Coil	AQ
⚠ L1702	RCiLF0138CEZZ	R	Coil	AQ
⚠ L1703	RCiLF0138CEZZ	R	Coil	AQ
L1750	RCiLP0292CEZZ	R	Coil	AE
L1751	RCiLP0171CEZZ	R	Coil	AD
L1752	RCiLP0178CEZZ	R	Coil	AD
L1753	RCiLP0268CEZZ	R	Coil	AE

TRANSFORMERS

Ref. No.	Part No.	★	Description	Code
⚠ T1601	RTRNF0153PEZZ	J	H-Volt Transformer	BH
⚠ T1602	RTRNZ0057PEZZ	J	Transformer	AK
⚠ T1701	RTRNZ0121PEZZ	J	Transformer	AY
⚠ T1702	RTRNZ0537BMZZ	R	Transformer	AS

CONTROL

Ref. No.	Part No.	★	Description	Code
R1631	RVR-M4634GEZZ	R	220k (B) SUB-CONT Adj.	AB

CAPACITORS

Ref. No.	Part No.	★				Code
C1024	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1217	VCEAGA0JW107M	R	100	6.3V	Electrolytic	AB
C1218	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1219	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C1251	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1301	VCQYTA1HM333J	R	0.033	50V	Mylar	AA
C1302	VCEAGA1HW335M	R	3.3	50V	Electrolytic	AB
C1304	VCFYFA1HA154J	R	0.15	50V	Mylar	AC
C1305	VCEAGA1VW477M	R	470	35V	Electrolytic	AD
C1306	VCQYTA1HM333J	R	0.033	50V	Mylar	AA
C1308	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1309	VCEAGA1VW108M	R	1000	35V	Electrolytic	AD
C1310	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1311	VCEAGA1VW477M	R	470	35V	Electrolytic	AD
C1312	VCFYFA1HA154J	R	0.15	50V	Mylar	AC
C1324	VCKYPA1HB682K	R	6800p	50V	Ceramic	AA
C1325	VCKYPA1HB682K	R	6800p	50V	Ceramic	AA
C1327	VCFYSA1HB154J	R	0.15	50V	Mylar	AB
C1329	VCEAGA1AW107M	R	100	10V	Electrolytic	AB
C1330	VCFYSA1HB154J	R	0.15	50V	Mylar	AB
C1333	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C1334	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1335	VCEAGA1AW227M	R	220	10V	Electrolytic	AB
C1336	VCEAGA0JW337M	R	330	6.3V	Electrolytic	AB
C1337	VCEAGA1AW227M	R	220	10V	Electrolytic	AB
C1338	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1339	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1340	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1341	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1344	VCQYTA1HM183J	R	0.018	50V	Mylar	AB
C1345	VCQYTA1HM223J	R	0.022	50V	Mylar	AA
C1346	VCQYTA1HM103J	R	0.01	50V	Mylar	AA
C1347	VCQYTA1HM183J	R	0.018	50V	Mylar	AB
C1348	VCQYTA1HM223J	R	0.022	50V	Mylar	AA
C1349	VCQYTA1HM103J	R	0.01	50V	Mylar	AA
C1350	VCQYTA1HM103J	R	0.01	50V	Mylar	AA

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POWER UNIT (Continued)

Ref. No.	Part No.	★			Description	Code
C1351	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1352	VCFYFA1HA224J	R	0.22	50V	Mylar	AC
C1353	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1356	VCQYTA1HM103J	R	0.01	50V	Mylar	AA
C1357	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1359	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1361	VCFYFA1HA224J	R	0.22	50V	Mylar	AB
C1365	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1366	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C1370	VCEAGA1EW475M	R	4.7	25V	Electrolytic	AA
C1371	VCEAGA1EW475M	R	4.7	25V	Electrolytic	AA
C1502	VCEACA1HC225J	R	2.2	50V	Electrolytic	AC
C1503	VCEAGA1CW108M	R	1000	16V	Electrolytic	AD
C1504	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1505	VCEACA1HC224K	R	0.22	50V	Electrolytic	AC
C1506	VCEACA1HC225J	R	2.2	50V	Electrolytic	AC
C1507	VCQYTA1HM223J	R	0.022	50V	Mylar	AA
C1508	VCCSPA1HL221J	R	220p	50V	Ceramic	AA
C1509	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1510	VCEAGA1VW108M	R	1000	35V	Electrolytic	AD
C1511	VCEAGA1HW107M	R	100	50V	Electrolytic	AC
C1512	VCFYAA2AA224J	R	0.22	100V	M. Polyester	AD
C1513	VCQYTA1HM103J	R	0.01	50V	Mylar	AA
C1514	VCKYPA2HB391K	R	390p	500V	Ceramic	AA
C1515	VCQYTA1HM823J	R	0.082	50V	Mylar	AA
C1516	VCEAGA1VW108M	R	1000	35V	Electrolytic	AD
C1517	VCQYTA1HM683J	R	0.068	50V	Mylar	AB
C1518	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C1519	VCEACA1HC474K	R	0.47	50V	Electrolytic	AB
C1521	VCQYSA2AA473K	R	0.047	100V	Mylar	AC
C1601	VCKYPA2HB152K	R	1500p	500V	Ceramic	AA
C1602	VCKYPA2HB471K	R	470p	500V	Ceramic	AA
C1603	VCCCPA1HH101J	R	100p	50V	Ceramic	AA
C1604	VCFPPD2DB474J	R	0.47	200V	Polypro Film	AE
C1605	VCEAGA1HW106M	R	10	50V	Electrolytic	AC
C1606	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C1607	VCEA0A2EW336M	R	33	250V	Electrolytic	AF
⚠ C1608	VCFPPD3CA822H	R	8200p	1.6kV	Polypro Film	AE
⚠ C1609	VCFPPD3CA822H	R	8200p	1.6kV	Polypro Film	AE
C1610	RC-KZ0338CEZZ	R	560p	2kV	Ceramic	AD
C1612	VCFPPC2DB364J	R	0.36	200V	Polypro Film	AF
C1613	VCFPPD2DB394J	R	0.39	200V	Polypro Film	AE
C1614	VCKYPA2HB561K	R	560p	500V	Ceramic	AA
⚠ C1615	VCQPSC2JA473K	R	0.047	630V	Polypro Film	AB
C1616	VCE9RH1HW475K	R	4.7	50V	Elect. (N.P)	AF
C1617	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C1618	VCEA0H1VW228M	R	2200	35V	Electrolytic	AH
C1619	VCFYSB2EB224K	R	0.22	250V	M. Polyester	AD
C1620	VCKYPA2HB331K	R	330p	500V	Ceramic	AA
C1621	VCEAGA1HW105M	R	1.0	50V	Electrolytic	AC
C1623	VCFYFA1HA474J	R	0.47	50V	Mylar	AC
⚠ C1624	VCFPPC3CA332H	R	3300p	1.6kV	Polypro Film	AD
C1631	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1632	VCFYFA1HA334J	R	0.33	50V	Mylar	AB
⚠ C1701	RC-FZ017SCEZZ	R	0.22	AC250V	Special	AD
⚠ C1702	RC-FZ016SGEZZ	R	0.47	AC250V	Special	AK
C1704	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1705	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C1708	RC-EZ0689CEZZ	R	680	400V	Electrolytic	BA
C1709	VCEAGA1HW107M	R	100	50V	Electrolytic	AC
C1710	VCQPSC2JA333K	R	0.033	630V	Polypro Film	AB
C1711	RC-KZ0024CEZZ	R	1000p	2kV	Ceramic	AC
C1712	RC-KZ0073CEZZ	R	2200p	2kV	Ceramic	AD
C1714	RC-KZ0029CEZZ	R	0.01	250V	Ceramic	AC
C1715	RC-KZ0029CEZZ	R	0.01	250V	Ceramic	AC
C1716	RC-KZ0029CEZZ	R	0.01	250V	Ceramic	AC
C1717	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1718	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C1719	VCEA0A2GW475M	R	4.7	400V	Electrolytic	AE
C1720	RC-KZ0029CEZZ	R	0.01	250V	Ceramic	AC
C1721	VCKYPA2HB222K	R	2200p	500V	Ceramic	AA
C1722	RC-KZ0029CEZZ	R	0.01	250V	Ceramic	AC
⚠ C1723	RC-KZ021SCEZZ	R	3300p	400V	Ceramic	AE
C1724	VCFYSB2EB224K	R	0.22	250V	M. Polyester	AD
C1727	VCKYPA1HB101K	R	100p	50V	Ceramic	AA
C1750	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C1751	RC-EZ0004PEZZ	J	2200	35V	Electrolytic	AH
C1753	RC-EZ0003PEZZ	J	1000	35V	Electrolytic	AF
C1754	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C1755	RC-EZ0003PEZZ	J	1000	35V	Electrolytic	AF
C1756	RC-EZ0002PEZZ	J	1000	25V	Electrolytic	AE
C1757	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C1758	RC-EZ0002PEZZ	J	1000	25V	Electrolytic	AE
C1759	RC-EZ0001PEZZ	J	680	25V	Electrolytic	AE
C1760	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C1761	RC-EZ0005PEZZ	J	330	160V	Electrolytic	AM
C1762	RC-KZ0029CEZZ	R	0.01	250V	Ceramic	AC
C1763	RC-EZ0006PEZZ	J	2200	160V	Electrolytic	AK
C1765	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C1767	VCEAGA1EW477M	R	470	25V	Electrolytic	AD
C1768	VCEA0A1CW477M	R	470	16V	Electrolytic	AC
C1769	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1774	RC-KZ0029CEZZ	R	0.01	250V	Ceramic	AC
C1780	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA

RESISTORS

R1203	VRD-RA2BE273J	R	27k	1/8W	Carbon	AA
R1204	VRD-RA2BE822J	R	8.2k	1/8W	Carbon	AA
R1205	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R1206	VRD-RA2BE222J	R	2.2k	1/8W	Carbon	AA
R1207	VRD-RM2HD561J	R	560	1/2W	Carbon	AA
R1209	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1210	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R1211	VRD-RM2HD471J	R	470	1/2W	Carbon	AA
R1212	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R1213	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1214	VRD-RA2BE332J	R	3.3k	1/8W	Carbon	AA
R1215	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R1216	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1218	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R1221	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R1222	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1223	VRD-RM2HD681J	R	680	1/2W	Carbon	AA
R1224	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1225	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1226	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R1227	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R1230	VRD-RA2BE102J	R	1.0k	1/8W	Carbon	AA
R1244	VRD-RA2EE750J	R	75	1/4W	Carbon	AA
R1301	VRD-RA2BE182J	R	1.8k	1/8W	Carbon	AA
R1302	VRD-RA2BE182J	R	1.8k	1/8W	Carbon	AA
⚠ R1303	VRG-RF2EB2R2J	R	2.2	1/4W	Fuse Resistor	AB
⚠ R1304	VRG-RF2EB2R2J	R	2.2	1/4W	Fuse Resistor	AB
R1305	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R1315	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R1316	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R1320	VRD-RA2BE123J	R	12k	1/8W	Carbon	AA
R1321	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R1325	VRD-RA2BE123J	R	12k	1/8W	Carbon	AA
R1327	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R1328	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R1330	VRD-RA2BE123J	R	12k	1/8W	Carbon	AA
R1332	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R1338	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1341	VRD-RA2BE123J	R	12k	1/8W	Carbon	AA
R1342	VRD-RA2BE123J	R	12k	1/8W	Carbon	AA
R1343	VRD-RA2BE274J	R	270k	1/8W	Carbon	AA
R1344	VRD-RA2BE274J	R	270k	1/8W	Carbon	AA
R1345	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1346	VRD-RA2BE333J	R	33k	1/8W	Carbon	AA
R1347	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1348	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1349	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1350	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1351	VRD-RA2BE333J	R	33k	1/8W	Carbon	AA
R1352	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA

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POWER UNIT (Continued)

Ref. No.	Part No.	★	Description	Code
R1353	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1354	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1355	VRD-RA2BE681J	R	680 1/8W Carbon	AA
R1356	VRD-RA2BE123J	R	12k 1/8W Carbon	AA
R1357	VRD-RA2BE123J	R	12k 1/8W Carbon	AA
R1361	VRD-RA2BE123J	R	12k 1/8W Carbon	AA
R1362	VRD-RA2BE562J	R	5.6k 1/8W Carbon	AA
R1363	VRD-RA2BE223J	R	22k 1/8W Carbon	AA
R1368	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1370	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1376	VRD-RA2BE183J	R	18k 1/8W Carbon	AA
R1377	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1378	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1501	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1502	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1503	VRD-RM2HD391J	R	390 1/2W Carbon	AA
R1504	VRD-RM2HD391J	R	390 1/2W Carbon	AA
R1505	VRD-RA2EE123J	R	12k 1/4W Carbon	AA
R1506	VRD-RA2BE101J	R	100 1/8W Carbon	AB
⚠ R1507	VRG-RF2EB220J	R	22 1/4W Fuse Resistor	AB
R1508	VRD-RM2HD391J	R	390 1/2W Carbon	AA
R1509	VRD-RA2BE124J	R	120k 1/8W Carbon	AA
R1510	VRD-RA2BE683J	R	68k 1/8W Carbon	AA
R1511	VRD-RA2BE102J	R	1.0k 1/8W Carbon	AA
R1512	VRD-RA2BE274J	R	270k 1/8W Carbon	AA
R1513	VRD-RA2BE223J	R	22k 1/8W Carbon	AA
R1514	VRD-RM2HD2R7J	R	2.7 1/2W Carbon	AA
R1516	VRD-RM2HD2R7J	R	2.7 1/2W Carbon	AA
R1517	VRD-RM2HD2R7J	R	2.7 1/2W Carbon	AA
R1518	VRD-RA2BE223J	R	22k 1/8W Carbon	AA
R1519	VRD-RA2BE221J	R	220 1/8W Carbon	AA
R1520	VRD-RA2BE183J	R	18k 1/8W Carbon	AA
R1601	VRS-KT3LB681J	R	680 3W Metal Oxide	AC
R1602	VRS-KT3LB561J	R	560 3W Metal Oxide	AE
R1603	VRS-VV3AB272J	R	2.7k 1W Metal Oxide	AA
⚠ R1604	RR-XZ0029CEZZ	R	3.3 1/2W Fuse Resistor	AB
R1606	VRD-RA2EE681J	R	680 1/4W Carbon	AA
R1607	VRD-RA2EE681J	R	680 1/4W Carbon	AA
R1608	VRD-RM2HD100J	R	10 1/2W Carbon	AA
R1609	VRW-KQ41C3R3K	R	3.3 15W Cement	AG
R1611	VRN-VV3LB2R2J	R	2.2 3W Metal Film	AC
R1612	VRD-RA2EE101J	R	100 1/4W Carbon	AA
R1613	VRD-RA2EE101J	R	100 1/4W Carbon	AA
R1614	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1615	VRD-RM2HD102J	R	1.0k 1/2W Carbon	AA
R1616	VRS-SU2HB102J	R	1.0k 1/2W Metal Oxide	AA
R1617	VRD-RA2EE393J	R	39k 1/4W Carbon	AA
R1618	VRD-RM2HD472J	R	4.7k 1/2W Carbon	AA
R1619	VRD-RA2BE472J	R	4.7k 1/8W Carbon	AA
R1620	VRD-RA2EE472J	R	4.7k 1/4W Carbon	AA
R1621	VRD-RM2HD222J	R	2.2k 1/2W Carbon	AA
R1622	VRN-VV3LB6R8J	R	6.8 3W Metal Film	AC
R1623	VRD-RA2BE102J	R	1.0k 1/8W Carbon	AA
R1624	VRD-RA2BE153J	R	15k 1/8W Carbon	AA
R1625	VRD-RA2BE273J	R	27k 1/8W Carbon	AA
R1626	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1627	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1628	VRD-RA2BE224J	R	220k 1/8W Carbon	AA
R1629	VRS-VV3DB561J	R	560 2W Metal Oxide	AA
R1630	VRD-RA2BE472J	R	4.7k 1/8W Carbon	AA
R1632	VRD-RA2EE274J	R	270k 1/4W Carbon	AA
R1633	VRD-RA2EE684J	R	680k 1/4W Carbon	AA
R1634	VRD-RA2EE334J	R	330k 1/4W Carbon	AA
R1635	VRD-RA2EE564J	R	560k 1/4W Carbon	AA
R1636	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1637	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1638	VRD-RA2BE560J	R	56 1/8W Carbon	AA
R1639	VRD-RA2BE153J	R	15k 1/8W Carbon	AA
R1640	VRD-RA2BE124J	R	120k 1/8W Carbon	AA
R1641	VRD-RA2BE223J	R	22k 1/8W Carbon	AA
R1642	VRD-RA2BE124J	R	120k 1/8W Carbon	AA
R1643	VRD-RA2BE123J	R	12k 1/8W Carbon	AA
R1644	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1645	VRD-RA2BE124J	R	120k 1/8W Carbon	AA
R1646	VRD-RA2EE125J	R	1.2M 1/4W Carbon	AA
R1648	VRD-RA2BE101J	R	100 1/8W Carbon	AB
R1650	VRN-VV3AB2R2J	R	2.2 1W Metal Film	AA
R1701	VRC-UA2HG395K	R	3.9M 1/2W Solid	AA
R1703	VRW-KP41C1R0K	R	1.0 15W Cement	AG
R1704	VRW-KQ41C1R0K	R	1.0 15W Cement	AF
R1705	VRW-KQ41C1R0K	R	1.0 15W Cement	AF
R1706	VRS-KT3LB822J	R	8.2k 3W Metal Oxide	AC
R1708	VRD-RA2BE472J	R	4.7k 1/8W Carbon	AA
R1709	RR-WZ0170CEZZ	R	0.18 3W Fuse Resistor	AE
R1710	RR-WZ0170CEZZ	R	0.18 3W Fuse Resistor	AE
R1711	VRD-RA2BE122J	R	1.2k 1/8W Carbon	AA
R1712	VRD-RA2BE122J	R	1.2k 1/8W Carbon	AA
R1713	VRS-VV3DB100J	R	10 2W Metal Oxide	AA
R1714	VRD-RM2HD332J	R	3.3k 1/2W Carbon	AA
R1715	VRS-KT3LB823J	R	82k 3W Metal Oxide	AC
R1716	VRW-KP3HC100J	R	10 5W Cement	AD
R1717	VRD-RM2HD220J	R	22 1/2W Carbon	AA
R1718	VRD-RM2HD104J	R	100k 1/2W Carbon	AA
⚠ R1719	VRC-UA2HG825K	R	8.2M 1/2W Solid	AA
⚠ R1720	VRC-UA2HG825K	R	8.2M 1/2W Solid	AA
R1721	VRD-RM2HD391J	R	390 1/2W Carbon	AA
R1726	VRS-KT3LB682J	R	6.8k 3W Metal Oxide	AC
R1728	VRS-VV3LB220J	R	22 3W Metal Oxide	AB
R1729	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1751	VRD-RA2BE273J	R	27k 1/8W Carbon	AA
R1753	VRD-RA2BE332J	R	3.3k 1/8W Carbon	AA
R1754	VRD-RA2BE472J	R	4.7k 1/8W Carbon	AA
R1756	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1757	VRD-RA2BE103J	R	10k 1/8W Carbon	AA
R1759	VRD-RA2BE102J	R	1.0k 1/8W Carbon	AA
R1761	VRD-RA2BE103J	R	10k 1/8W Carbon	AA

SWITCHES

S1201	QSW-K0079GEZZ	R	CH-Up	AB
S1202	QSW-K0079GEZZ	R	CH-Down	AB
S1203	QSW-K0079GEZZ	R	VOL-Up	AB
S1204	QSW-K0079GEZZ	R	VOL-Down	AB
S1205	QSW-K0079GEZZ	R	Preset	AB
⚠ S1701	QSW-P0588CEZZ	R	Main Power	AP

MISCELLANEOUS PARTS

⚠ RY1701	RRLYJ0046CEZZ	R	Relay	AL
⚠ F1701	QFS-C5022CEZZ	R	Fuse, T5A 250V	AD
FH1701	QFSHD1013CEZZ	R	Fuse Holder	AC
FH1702	QFSHD1014CEZZ	R	Fuse Holder	AC
FB1501	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1601	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1602	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1603	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1702	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1703	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1750	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1751	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1752	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1753	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1754	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1755	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1757	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB1759	RBLN-0037CEZZ	R	Ferrite Bead	AB
J1201	QJAKE0144CEZZ	R	Jack, Video-IN	AF
J1202	QJAKE0145CEZZ	R	Jack, L-IN	AF
J1203	QJAKE0143CEZZ	R	Jack, R-IN	AG
J1301	QJAKJ0047CEZZ	R	Jack	AD
P1201	QPLGZ1138CEZZ	R	Plug, 11-pin (XA)	AE
P1202	QPLGN0261CEZZ	R	Plug, 2-pin (VR)	AB
P1301	QPLGN0461CEZZ	R	Plug, 4-pin (SS)	AB
P1304	QPLGZ1938CEZZ	R	Plug, 19-pin (XB)	AF
P1305	QPLGN0361CEZZ	R	Plug, 3-pin (SI)	AB
P1501	QPLGZ1138CEZZ	R	Plug, 11-pin (XD)	AE
P1601	QPLGN0160FJZZ	R	Plug, 5-pin (K)/(F)	AD
P1602	QPLGN0361CEZZ	R	Plug, 3-pin (H)	AB
P1701	QPLGN0269GEZZ	R	Plug, 2-pin (A)	AB

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PWB-C: DUNTK9357WEX9
POWER UNIT (Continued)

P1704	QPLGN0207CEZZ	R	Plug, 2-pin (G)	AA
P1705	QPLGZ1019CEZZ	R	Plug, 10-pin (XC)	AG
SC1601	QTiPM0083CEZZ	R	Tip, (L2)	AB
RMC1201	RRMCU0222CEZZ	R	R/C Receiver	AL
RDA1301	PRDAR0262PEFW	J	Heat Sink, for IC1301	AQ
RDA1501	PRDAR0213PEFW	J	Heat Sink, for IC1501	AM
RDA1601	PRDAR0252PEFW	J	Heat Sink, for Q1601, D1616	AL
RDA1602	PRDAR0257PEFW	J	Heat Sink, for Q1603	AF
RDA1701	PRDAR0220PEFW	J	Heat Sink, for IC1701	AR
RDA1702	PRDAR0139PEFW	J	Heat Sink, for D1701	AC
RDA1750	PRDAR0160PEFW	J	Heat Sink, for D1750	AF
RDA1751	PRDAR0135PEFW	J	Heat Sink, for D1615	AE
RDA1752	PRDAR0261PEFW	J	Heat Sink, for D1751	AF
SLD1301	PSLDM0146PEFW	J	Shield	AE
	LHLDP1056PE00	J	Holder	AC
	LHLDW1067PEKZ	J	Holder	AC

PWB-D: DUNTK9358WEV0
DIG. COM UNIT

INTEGRATED CIRCUIT

IC5461	VHiTC9090AN-1	R	TC9090AN	BC

TRANSISTORS

Q5461	VS2SD601A//-1	R	2SD601A	AC
Q5462	VS2SB709A//-1	R	2SB709A	AA
Q5463	VS2SD601A//-1	R	2SD601A	AC
Q5464	VS2SD601A//-1	R	2SD601A	AC
Q5465	VS2SD601A//-1	R	2SD601A	AC
Q5466	VS2SB709A//-1	R	2SB709A	AA
Q5467	VS2SD601A//-1	R	2SD601A	AC
Q5861	VS2SD601A//-1	R	2SD601A	AC
Q5862	VS2SD601A//-1	R	2SD601A	AC
Q5863	VS2SB709A//-1	R	2SB709A	AA
Q5864	VS2SD601A//-1	R	2SD601A	AC

DIODES

D5461	RH-EX0619GEZZ	R	Zener Diode	AA
D5462	RH-EX0619GEZZ	R	Zener Diode	AA
D5463	VHD1SS119//-1	R	1SS119	AB

COILS

L5461	VP-DF100K0000	R	Peaking 10µH	AB
L5462	VP-DF100K0000	R	Peaking 10µH	AB
L5463	VP-DF101K0000	R	Peaking 100µH	AB
L5464	VP-DF101K0000	R	Peaking 100µH	AB
L5465	VP-XF330K0000	R	Peaking 33µH	AB
L5466	VP-XF330K0000	R	Peaking 33µH	AB
L5467	VP-DF101K0000	R	Peaking 100µH	AB
L5468	VP-DF101K0000	R	Peaking 100µH	AB
L5469	VP-DF101K0000	R	Peaking 100µH	AB
L5471	VP-DF101K0000	R	Peaking 100µH	AB
L5472	VP-XF470K0000	R	Peaking 47µH	AB
L5473	VP-XF470K0000	R	Peaking 47µH	AB
L5861	VP-XF6R8K0000	R	Peaking 6.8µH	AB
L5862	VP-XF100K0000	R	Peaking 10µH	AB
L5863	VP-DF101K0000	R	Peaking 100µH	AB

CONTROL

R5467	RVR-M4619GEZZ	R	680(B) Video Level Adj.	AB

CAPACITORS

C5405	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C5460	VCEAGA0JW477M	R	470	6.3V	Electrolytic	AB
C5461	VCEAGA0JW477M	R	470	6.3V	Electrolytic	AB
C5462	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5463	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C5464	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5465	VCCCCY1HH150J	R	15p	50V	Ceramic	AA
C5466	VCCCCY1HH560J	R	56p	50V	Ceramic	AA
C5467	VCCCCY1HH150J	R	15p	50V	Ceramic	AA
C5468	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C5469	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C5470	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5471	VCEAGA1HW474M	R	0.47	50V	Electrolytic	AA
C5472	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5473	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5474	VCEAGA0JW477M	R	470	6.3V	Electrolytic	AB
C5475	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5476	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5477	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5478	VCEAGA0JW477M	R	470	6.3V	Electrolytic	AB
C5479	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5480	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5481	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5482	VCCCCY1HH181J	R	180p	50V	Ceramic	AA
C5483	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5484	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5485	VCCCCY1HH121J	R	120p	50V	Ceramic	AA
C5486	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA

Ref. No.	Part No.	★	Description			Code

PWB-D: DUNTK9358WEV0

DIG. COM UNIT (Continued)

C5487	VCEAGA0JW477M	R	470	6.3V	Electrolytic	AB
C5488	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5489	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C5490	VCCCCY1HH560J	R	56p	50V	Ceramic	AA
C5491	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C5492	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C5493	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5494	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C5861	VCCCCY1HH270J	R	27p	50V	Ceramic	AA
C5863	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C5864	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C5865	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C5866	VCCCCY1HH560J	R	56p	50V	Ceramic	AA

RESISTORS

R5455	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R5461	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5462	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5463	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R5464	VRS-CY1JF333J	R	33k	1/16W	Metal Oxide	AA
R5465	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5466	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R5468	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5469	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5470	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R5471	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R5472	VRS-CY1JF822J	R	8.2k	1/16W	Metal Oxide	AA
R5473	VRS-CY1JF123J	R	12k	1/16W	Metal Oxide	AA
R5474	VRD-RA2BE821J	R	820	1/8W	Carbon	AA
R5475	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5476	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5477	VRS-CY1JF473J	R	47k	1/16W	Metal Oxide	AA
R5478	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R5479	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5480	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R5481	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5482	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5483	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5484	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R5485	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R5486	VRS-CY1JF821J	R	820	1/16W	Metal Oxide	AA
R5861	VRD-RA2BE821J	R	820	1/8W	Carbon	AA
R5862	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R5864	VRS-CY1JF123J	R	12k	1/16W	Metal Oxide	AA
R5865	VRS-CY1JF332J	R	3.3k	1/16W	Metal Oxide	AA
R5866	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA
R5867	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5868	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5869	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA
R5870	VRS-CY1JF102J	R	1.0k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

P5450	QPLGN0785CEZZ	R	Plug, 7-pin (YA)	AC
P5451	QPLGN0785CEZZ	R	Plug, 7-pin (YB)	AC
SLD5451	PSLDM0212PEFW	J	Shield	AE
SLD5452	PSLDM0213PEFW	J	Shield	AD

Ref. No.	Part No.	★	Description			Code

MISCELLANEOUS PARTS

⚠	QACCL3025CESA	R	AC Cord	AR
	VSP0010PBS98A	R	Speaker	AV
CN201	QCNW-2157PEZZ	R	Connecting Cord	AH
CN601	QCNW-2349PEZZ	R	Connecting Cord	AH
CN602	QCNW-2348PEZZ	R	Connecting Cord	AF
CN850	QCNW-1885PEZZ	R	Connecting Cord	AG
CN851	QCNW-2170PEZZ	R	Connecting Cord	AG
CN852	QCNW-2169PEZZ	R	Connecting Cord	AH
CN1202	QCNW-2203PEZZ	R	Connecting Cord	AG
CN1501	QCNW-2171PEZZ	R	Connecting Cord	AF
	QCNW-4761CEZZ	R	Connecting Cord	AH

SUPPLIED ACCESSORIES

ACCESSORIES

RRMCG1529PESA	R	Infrared R/C Unit	AS
TiNS-6784PEZZ	R	Operation Manual	AF

ACCESSORIES (NOT REPLECEMENT ITEM)

TGAN-0068PEZZ	–	Guarantee Card	—
TCAUA0002PEZZ	–	Caution Card	—

Ref. No.	Part No.	★	Description	Code

PACKING PARTS
(NOT REPLACEMENT ITEM)

	SPAKC6564PEZZ	–	Packing Case	—
	SPAKP0147PEZZ	–	Wrapping Paper	—
	SPAKX2714PEZZ	–	Buffer Material	—
	SSAKA0002PEZZ	–	Polyethylene Bag	—

CABINET PARTS

1	CCABA2521WEV0	R	Front Cabinet Ass'y	BR
1-1	*Not Available*	–	Front Cabinet	—
1-2	HDECQ0137PESA	R	LED Cover	AF
1-3	GCOVA0106PEZZ	R	Cover, in Door	AF
1-4	GDORF0181PESA	R	Door	AG
1-5	HBDGB3120CESB	R	Badge, "SHARP"	AF
1-6	JBTN-0315PESA	R	Button, Power	AG
1-7	MSPRC0005PEFW	R	Spring, Power Button	AB
1-8	PKAi-0007PE00	R	Latch, for Door	AE
1-9	HiNDP0242PEZZ	R	Indication Plate, In Door	AD
2	CCABB2388WEV1	R	Rear Cabinet Ass'y	BT
2-1	*Not Available*	–	Rear Cabinet	—
2-2	HiNDP0219PEZZ	R	Indication Plate	AF

CABINET PARTS LOCATION